CONNECTICUT.

BRIDGEPORT,

FAIRFIELD COUNTY, CONNECTICUT.

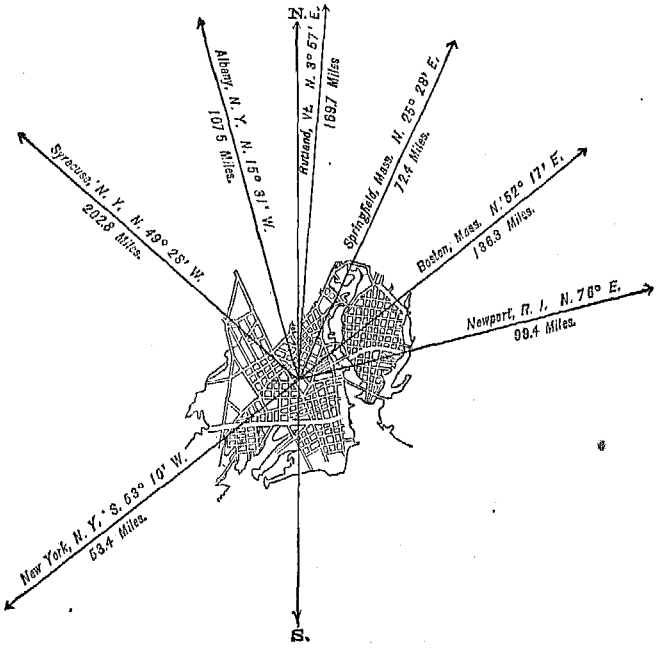
POPULATION

IN THE

AGGREGATE,

1810-1880.

	Inhab.
1790	.....
1800	.....
1810	1,089
1820	1,500
1830	2,800
1840	3,294
1850	7,560
1860	13,299
1870	18,969
1880	27,643



POPULATION

BY

SEX, NATIVITY, AND RACE,

AT

CENSUS OF 1880.

Male	13,421
Female	14,222
Native	20,204
Foreign-born	7,439
White	27,194
Colored	* 449

* Including 4 Chinese and 2 Indians.

Latitude: 41° 10′ North; Longitude: 73° 11′ (west from Greenwich); **Altitude: 0 to 70 feet.**

FINANCIAL CONDITION:

Total Valuation: $11,720,503; per capita: $402 00. Net Indebtedness: $740,268; per capita: $25 40. Tax per $100: $2 12.

HISTORICAL SKETCH.

The history of the city of Bridgeport, Connecticut, does not begin with the incorporation of the town of Bridgeport in 1821, or even with the creation of a borough of the same name in 1800, but goes back to a time when the territory now within its bounds was a part of the towns of Stratford and Fairfield. These towns were settled in 1639 by settlers from Massachusetts, but not until 1670 did any of the inhabitants settle on the land along the Pequonnock river, within the present limits of Bridgeport. They were strictly an agricultural people, devoted to the cultivation of their fields and the care of their sheep, which formed an important part of their wealth. In 1694

the people of Pequonnock asked that the name Pequonnock might be changed to "Fairford", and a change was allowed to that of "Fairfield Village". With this the people were not satisfied, and called their village "Stratfield", a name which was legalized in 1701. Until the Revolution, Stratfield remained a quiet agricultural village, but just before that war it began a small coasting and foreign trade. Naturally the Revolution put an end to this trade. A part of the citizens served in the Continental army. Besides the dangers of war a terrible epidemic of small-pox in 1777 kept the people in distress, but with the peace the village began to be fairly prosperous. The growth of Newfield, as Stratfield now began to be called, was not rapid. In 1791 a bridge, known as the Lottery bridge—since it was built with the proceeds of a lottery authorized by the legislature for the purpose—was constructed across Newfield harbor. In 1804, while undergoing repairs, it fell, and was not replaced until the present Bridgeport or Lower bridge was built in 1807. The first newspaper in Newfield was published in 1795 under the name of the *American Telegraph and Fairfield County Gazette*. Two years later the place had become of such importance that the legislature granted to it the right to select 25 citizens living within the village to act as firemen, and in 1800 the village of Newfield became the borough of Bridgeport, and was granted the rights of all cities and towns, except that of having a representative in the legislature, and of voting as a town in town and state elections. This latter was done at Stratford. The census of 1810 tells us that Bridgeport had 1,089 inhabitants and 123 dwellings, and carried on quite an extensive trade with the West Indies. During the war of 1812 the British were again in possession of Long Island sound, and much loss resulted to Bridgeport's trade.

At the close of the war prosperity returned, and in 1818 the manufacture of saddlery was begun, and for many years was the leading industry of the place. The civil war took away the customers, who were mostly from the South, and the industry lost its importance. In 1819 Bridgeport asked to be made a town by itself. Stratford opposed the petition, but, in 1821, when the petition was renewed, acquiesced in the separation. The boundaries, when established, were to the advantage of the older town. At the time of the incorporation Bridgeport had about 1,700 inhabitants.

In 1830 the manufacture of fine carriages was begun in the town. Six years later came an event of great importance. As early as 1801, recognizing that the position of the place made it the natural distributing point for the valleys of the Housatonic and Naugatuck rivers, Bridgeport had built an excellent road to facilitate communication. Other towns, wishing to secure this trade, also built roads, and in 1827 a company was incorporated to build a canal from the Housatonic, at New Milford, to Saugatuck harbor. Bridgeport looked upon these movements with suspicion, and entered eagerly into railroad projects that would assure to her the trade. Accordingly, in 1836, the Housatonic Railroad Company was incorporated, and Bridgeport took a large number of its shares, issuing bonds for the purpose. The railroad had its other terminus at Sheffield, Massachusetts. In the same year a city charter was granted to Bridgeport, but in 1839, fearing the financial trouble arising from the issue of the bonds in support of the Housatonic railroad, East Bridgeport asked to be set off from the city. This was done, but it remained a part of the town until reunited with the city in 1864. Two years before the incorporation of the Housatonic railroad a daily line of steamers to New York began to run from Bridgeport. By the completion of the railroad in 1842, and of the New York and New Haven and the Naugatuck railroads in 1849, the importance of the city was much increased.

The decade from 1850 to 1860 was one of great prosperity to Bridgeport. In 1851 the Bridgeport Gas Light Company began business; two years later the Bridgeport Water Company was formed, and in the following two years laid its mains through the city. Previous to this the only water-supply had been a small quantity brought in wooden pipes from certain springs near Golden hill. It was first begun in 1818, and carried on by various parties until the Bridgeport and Golden Hill Aqueduct Company was formed in 1833. The existing supply is taken from the Pequonnock and pumped into four reservoirs. During this period East Bridgeport was becoming an important manufacturing town. It received its first impulse at the hands of P. T. Barnum, esq., who proved himself a wise and public-spirited citizen; but its great importance is due to the coming of the Wheeler and Wilson Sewing Machine Company in 1856. Between 1850 and 1860 the population of Bridgeport nearly doubled, going from 7,560 to 13,299.

The period of the civil war was a time of depression in such industries as relied on the southern trade, but it was also the time in which many new and important industries were introduced into the city. Among these were the Howe Sewing Machine Company, the Union Metallic Cartridge Company, and many others. The growth since the war has been rapid, and in 1870 a part of Fairfield was annexed to the city

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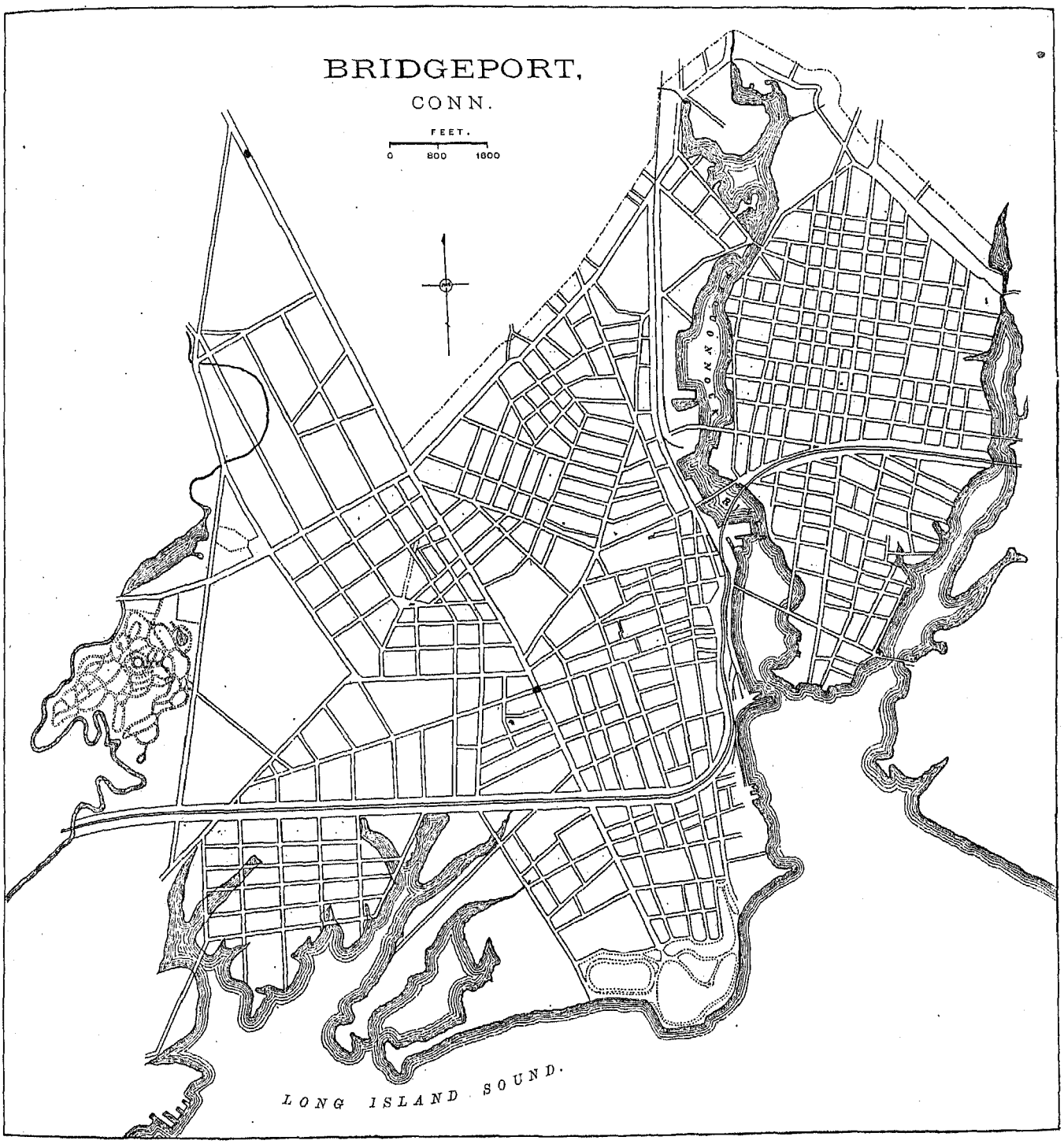
BRIDGEPORT IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of Bridgeport:

LOCATION.

The city lies in latitude 41° 10′ north, longitude 73° 11′ west from Greenwich, on both banks of the Pequonnock river at a point where it enters Long Island sound. It is 18 miles southwest of New Haven, and about 56 miles


BRIDGEPORT,
CONN.
FEET.
0
800
1600
LONG ISLAND SOUND.

northeast of New York. The highest point is about 70 feet above sea-level, and the lowest is tide-water. It is situated on Bridgeport harbor, an arm of the sound, which is landlocked and safe. The depth at low water is 9 or 10 feet in the channel, which is about 200 feet wide. Black Rock harbor is also within the city limits, and is a small but excellent harbor.

RAILROAD COMMUNICATIONS.

The city is connected by the New York, New Haven, and Hartford railroad with New York, Springfield, and Boston; by the Naugatuck railroad with Winsted, Connecticut; and by the Housatonic railroad with Pittsfield, Massachusetts, and Albany, New York.

TRIBUTARY COUNTRY.

The country immediately surrounding Bridgeport is chiefly devoted to agriculture—dairy products and vegetables being the chief productions. The railroads connect the city with extensive manufacturing interests in the Housatonic and Naugatuck valleys, for which it is the distributing-point.

TOPOGRAPHY.

The city is generally level, the highest point being only 70 feet above the sea-level. The soil is mostly gravel, resting on an underlying rock, with occasional outcroppings of mica-schist and good building-stone. The country about the city is generally higher, and is quite wooded. Its soil is somewhat rocky in places, but, in general, is good farming-land.

CLIMATE.

The highest summer temperature in average years is 90°; the lowest winter temperature in average years is —2°. The adjacent waters tend to diminish the extremes and equalize the mean annual temperature. The prevailing winds are northerly and westerly, and reduce the temperature and humidity. In summer a southwest wind prevails in the afternoon and evening, making the nights comfortable.

STREETS.

The total length of streets is 89.32 miles. Of this, 1,550 feet is paved with cobble-stones, 5,550 feet is paved with broken stone, and the remainder is nearly all gravel. The sidewalks in the center of the city are generally of blue flagging, while in the less densely populated parts there is a large amount of concrete walks. The gutters are made by laying a 12-inch flagstone abutting the curb, and then laying a cobble-stone paving 2 feet in width, with a pitch of 3 inches toward the curb outside the flag. The city is well supplied with shade-trees, which are generally placed in a grass-plot left between the curbstone and the stone or concrete walk. The street-repairing is done by day work, and in 1879 cost $4,210 93. The city owns a steam stone-crusher, which it does not use, and a steam roller. The latter is found to be of great use. There are 4 miles of horse-railroads. There are 9 cars in use, 41 horses and 19 men employed, and 330,847 passengers were carried during the past year (1879). The rate of fare is 5 cents. There are no omnibus lines in the city.

WATER-WORKS.

Bridgeport is supplied with water by the Bridgeport Hydraulic Company, a private corporation. The supply is obtained from the Housatonic river, from whence the water goes partly by gravity, partly by pumping, into 4 reservoirs. During 10 hours the least amount pumped is 1,245,000 gallons, and this is done at a cost of $14 10. There are 45 miles of street-mains and supply-pipes. There are 178 hydrants in use, and the pressure at them is 41 pounds to the square inch. The average daily consumption is 3,000,000 gallons.

GAS.

The city is supplied with gas by the Bridgeport Gas Light Company, a private corporation. The average daily production is 79,000 cubic feet, and the charge per 1,000 feet is $2 60. The city pays $20 a year for each gas street-lamp, 393 in number. In the suburbs gasoline street-lamps are used. There are about 230 of these, and the cost for the year ending March 31, 1880, was $3,879.

PUBLIC BUILDINGS.

Except the school-houses, valued at $143,690, the almshouse, valued at $48,500, and the engine-houses, valued at $47,000, the city owns none of the buildings used by it for municipal purposes. It pays $500 per year for the use of a basement for police purposes, and a city court-room up-stairs, while the common-council room and the offices of the mayor, aldermen, and other city officers are in another building, rented for $1,200, and also used as a public library. When a town, Bridgeport built a court-house, and presented a portion to the county. The part now owned by the city is valued at $100,000.

PUBLIC PARKS AND PLEASURE-GROUNDS.

The total area of the parks of Bridgeport is 110 acres.

Seaside Park, on the shore of Long Island sound, has an area of 50 acres, and is a beautiful ground with a fine water-front and drive, a natural grove and a fine lawn, on which is the soldiers' monument.

Washington Park, in the center of East Bridgeport, has a natural grove and fine lawn. Its area is about 4 acres, and all the churches front upon it.

Old Mill Green is a natural lawn with old elm trees; area, 6 acres.

Beardsley Park, in the suburbs, has an area of 50 acres, and is as yet only slightly improved, though its natural advantages are very fine.

These parks are largely donations, and are valued at $375,000. The annual cost of maintenance is, for Seaside park, $2,500, Washington and Beardsley parks, $500 each, and Old Mill green, $100; total, $3,600. They are controlled by a board of park commissioners of four members, two from each political party, appointed by the mayor and confirmed by the aldermen. Their terms of service are 2 years each, one from each political party being appointed annually.

PLACES OF AMUSEMENT.

Bridgeport has no theaters, Haws' opera-house—seating capacity 1,200—being used by traveling theatrical companies for exhibitions. Saint John's hall, seating about 600, is also sometimes used. All theatrical exhibitions pay a license of $6 for each night and $3 for each day performance; one-half these sums is charged for halls seating less than 500. There are also in the city: Lyceum hall, Staples' hall, Curtis' hall, and various society halls, as Masonic, Odd Fellows', Grand Army of the Republic, Knights of Pythias, etc., the seating capacities of which are not given. There is one concert- and beer-garden (Wagner's), constructed in 1878, and seating about 300.

DRAINAGE.

The sewerage of this city has not been in accordance with a general system. "Conditions have not rendered a general system necessary." The work done, made up of several sections, has been developed from time to time according to circumstances.

There were originally in the limits of the sewered portions of the city three water-courses, one of which has been utilized partially but unsatisfactorily; the other two have been supplanted.

Experience in Bridgeport indicates that it is not expedient to continue old water-courses as parts of the sewer system; that it is better to construct special drains or sewers to take the necessary flow independently of the regular sewage, especially so where the water-shed is considerable and where the volume of the flow increases gradually during storms.

The sewers of this city discharge into the harbor between high- and low-water marks. There is no special disposal beyond the discharge into tide-water.

The need for artificial flushing or cleansing has been exceptional. The original cost of the sewerage work is paid entirely by the city, and three-quarters of this cost, including a proper proportion of the cost of the main sewer into which a lateral may discharge, is assessed on property benefited in a general way, according to frontage, but with due regard to the depth (and therefore area) of the lot.

There is no provision for the ventilation of the sewers, except such as are afforded by untrapped rain-water leaders from roofs.

The sewers are mainly cement pipes of home production. They are laid at depths varying from 7 to 11 feet.

Prices are given for two sizes, viz, round pipes 12 inches in diameter, and oval pipes 20 by 15 inches. The cost of the construction of these sewers was formerly from 75 cents to $1 per foot for the smaller size, and from $1 25 to $1 50 per foot for the larger size. Owing to local competition, the following prices now prevail: The small size from 24 cents to 45 cents per foot, and the larger from 44 cents to 85 cents per foot. The cost of inlet-basins is from $30 to $33; of manholes, $12. These prices do not include rock excavation, which is paid for separately.

The charge for entering private drains from churches, dwelling-houses, and stores is $50 each. When houses and stores are built in blocks, the designated price is to be paid for each of them. Hotels and public-houses are charged $125; manufacturing establishments and others not included in the above, $100.

The following extracts from the city ordinances are noteworthy:

All permits given by the road and bridge commissioners to connect with sewers and drains, and all private sewers, drains, or pipes constructed and laid by permission of said board, to connect with any public sewer in any of the streets or highways of the city, shall be upon the express condition that the common council of the city of Bridgeport may at any time revoke and annul the same, and the persons making such connections, or their successors in interest, shall have no right to demand or claim any damages in consequence of such permission being revoked or annulled.

The laying, making, and repairing of all said drains and connections, whether by virtue of a permit or assessment, shall be done under the direction and to the acceptance of said board of commissioners, and said commissioners shall have power and it shall be their duty to discontinue, stop up, and prevent from discharging into said public sewers any private drain or drains not properly constructed, or not kept and maintained in good condition and repair, to their reasonable satisfaction, or for which no permit has been obtained as aforesaid.

Any person who shall make, or cause or procure to be made or laid, or assist in making, any opening into or connection with any of said sewers, or with any of the continuations, branches, or connections thereof, without having been assessed therefor as aforesaid, or, if not so assessed, without having first obtained a written permit as aforesaid, or shall open, or cause or procure to be opened, or aid or assist in opening, any drain which has been stopped up or discontinued as aforesaid, without having first obtained the written consent and approval of the board of road and bridge commissioners, shall forfeit and pay the sum of $100, for the use of said city, to be recovered in any proper form of action.

No owner or occupant of any dwelling-house, store, or other building, or of any manufactory, brewery, distillery, or the like, having permission to connect with any sewer or drain as aforesaid, shall permit any substance to flow into any sewer, drain, or receiving-basin which shall form a deposit that tends to fill said sewer, drain, or receiving-basin, under the penalty of $50 for each offense.

No butcher's offal or garbage, dead animals, or obstructions of any kind whatever, shall be placed, thrown, or deposited in any receiving-basin or sewer; and any person so offending or causing any such substance or obstruction to be placed so as to be carried into such receiving-basin or sewer shall forfeit and pay $10 for each offense; and any person who shall injure, break, or remove any portion of any receiving-basin, crossing-flag, manhole vent, or any part of any sewer or drain, or who shall obstruct the mouth of any sewer or drain, or obstruct the flow of water in any sewer, drain, or water-course in the city of Bridgeport, shall forfeit and pay $25 for each and every such offense.

CEMETERIES.

There are 6 cemeteries connected with the city, as follows:

Ancient Stratfield Cemetery, in the extreme northeastern part of the city, has an area of 2½ acres, and is almost out of use.

Mountain Grove Cemetery, near the preceding, between Burr road and Ash creek, has an area of 70 acres.

Grove Street Roman Catholic Cemetery, with an area of 1½ acre, is now full and not used.

Roman Catholic Cemetery, in East Bridgeport, on Pembroke lake, has an area of 5 acres.

Pembroke Cemetery, in Stratford, just outside the city limits, has an area of 9 acres.

Park Cemetery, in North Bridgeport, has an area of 45 acres.

Two cemeteries have been given up to the demands of business, and the bodies removed to Mountain Grove and Pembroke cemeteries. The first of these was situated near the center of the city, between Park and Ivanistan avenues and Lewes and State streets, and the other in East Bridgeport between Kossuth, Maple, East Main, and Arctic streets. The removals were made in 1872 and 1873. The total number of interments in the various cemeteries is about 10,640. All these cemeteries, except the Ancient Stratfield, are governed by private corporations. Mountain Grove, established about 1850, was for a long time the leading cemetery, but Pembroke, established in 1874, and Park, in 1878, have already begun to attract purchasers, owing to the low price of lots. The only ordinance in regard to cemeteries is one prohibiting burials in cemeteries where graves are so thick that a new one, 4 feet deep, can not be made. A permit must be obtained for each interment.

MARKETS.

There are no public or corporation markets in the city.

SANITARY AUTHORITY—BOARD OF HEALTH.

The chief sanitary authority of Bridgeport is a board of health composed of the mayor, city solicitor, and city clerk, *ex officiis*, with 4 others, 2 of whom must be physicians, appointed by the mayor, subject to the confirmation of the board of aldermen, and 1 health officer, who is chosen by the common council. The presiding officer is the mayor, while the city clerk acts as clerk. The annual expense of the board in the absence of an epidemic is about $700, of which $450 is used for salaries of the health officer and clerk, and $250 is expended for removing garbage. During an epidemic the board is limited in its expenditures to the amount appropriated for its use by the common council. Its authority in absence of an epidemic extends over all nuisances and causes of injury to public health, while during an epidemic its authority, except in increasing expenses beyond the appropriation, is unlimited. The chief executive officer is the health officer, who receives a salary of $300 a year, and whose duty it is to execute all the orders of the board. Meetings are held on the first and third Tuesdays of May, June, July, August, and September, and on the first Tuesday of each of the other months. Inspections of defective house-drainage, privy-vaults, cess-pools, etc., are made by the health officer, and the authority of the board extends over defective sewerage and street-cleaning.

NUISANCES.

Inspections are made frequently in the parts of the city most needing attention, but generally only as nuisances are reported. If a nuisance is found to exist, the health officer notifies the clerk of the board, who gives such orders as may be necessary.

INFECTIOUS DISEASES.

Small-pox patients are either quarantined at home or removed to a pest-house, while scarlet-fever patients are neither quarantined nor isolated. Every physician must report to the board any case of small-pox, varioloid, or other infectious or pestilential disease which he may be called to attend. Should contagious diseases break

out in the schools, the board has authority to close them if necessary. There is no regular pest-house, but a temporary one is established when necessary. Vaccination is compulsory when ordered by the board, and is done at the public expense or not, as the board may decide.

The registrar of the city keeps the record of births, deaths, and diseases, receiving returns from the physicians. This is done under the supervision of the state board of health.

REPORTS.

The board reports annually to the common council, and the reports are published in the municipal register with the other annual reports of the city officials.

MUNICIPAL CLEANSING.

Street-cleaning.—The streets are cleaned at the expense of the city and with its regular force. The work is done wholly by hand, no sweeping-machines being used. The cleaning is done whenever the road and bridge commissioners, who have full control, think best. The cost of this work for the past year (1879–'80) was $4,210 93. The best portion of the sweepings is used on the parks as a fertilizer, and the remainder is used for filling in streets across the harbor or creeks. Some complaint has arisen, since the sweepings are not always removed promptly, and, when used as filling, are uncovered by the tide and sometimes emit offensive odors.

Removal of garbage and ashes.—The garbage is removed by the city, contracts being made with parties for the purpose. It must be kept, while awaiting removal, in suitable vessels, unmixed with ashes or house-dirt, and placed as the clerk of the board of health may direct. It is removed beyond the city limits and used in feeding swine. The cost to the city for this removal is $200 yearly. Ashes are removed at the expense of the householders and are used for filling. The system is thought to be a good one.

Dead animals.—There are no special regulations as to the disposal of dead animals, but the practice has been for the board of health to have them buried if complaint is made to it. Only a few cases occur—about 20 annually.

Liquid household wastes.—Nearly all the chamber-slops and the kitchen and household wastes are run into the public sewers where these exist, none being allowed to go into the street-gutters. About one-quarter of the city depends on cesspools, about one-half of which are porous, and the remainder tight or nominally so. They are not provided with overflows and do not receive the wastes from water-closets. Cases of contamination of drinking-water by the escape of the contents of cesspools have occurred. The board of health requires the cesspools to be cleaned and disinfected so as not to become nuisances.

Human excreta.—About one-half the houses in the city depend on water-closets, and the remainder on privy-vaults. All the water-closets deliver into the public sewers, none being allowed to enter the cesspools. Only a few of the privy-vaults are water-tight. They must be emptied during the months of December, January, February, and March between the hours of 10 p. m. and 5 a. m., by parties licensed by the board of health. The night-soil is taken beyond the city limits, composted, and used as a fertilizer; but none, so far as can be avoided, is allowed on land within the gathering-ground of the public water supply.

Manufacturing wastes.—There is no system of disposing of the liquid and solid manufacturing wastes, and no regulations on the subject have been made. When a nuisance arises the board of health abates it. No trouble has arisen from the lack of system.

POLICE.

The police force of Bridgeport is appointed by the police commissioners, 4 in number, appointed by the mayor and approved by the common council; their term of office is 2 years. The mayor *ex officio* is chairman of the board. The chief executive officer is the chief of police, who receives a salary of $1,200 annually and has general supervision of the force. The rest of the force consists of a captain, salary $75 a month; a lieutenant, at $72 50 a month; and 20 patrolmen, at $70 a month each. The men provide their own uniforms, hats and badges being furnished by the city. They are equipped with batons, clubs, and pistols, and are on duty nine hours at a time. The force patrols about 80 miles of streets. The number of arrests for the year ending March, 1880, was 862, the larger portion being for drunkenness. No account of the number of station-house lodgers has been kept. The force must co-operate with the fire department at all fires. Special policemen are appointed by the police commissioners, and receive $2 53 a day while on duty, and $1 for each arrest made while not in actual service. The yearly cost of the police force to March, 1880, was $18,192 23.

FIRE DEPARTMENT.

The fire department of Bridgeport consists of 1 chief and 3 assistant engineers, 3 steamer engineers, and 3 assistant steamer engineers, 7 drivers, 1 tillerman, and 42 firemen, making a total membership of 60 men. The force is appointed and governed by the board of fire commissioners, consisting of the mayor *ex officio* as president and 4 members. The apparatus consists of 3 public and 1 private steam fire-engines, 5 hand chemical extinguishers, 2 hook-and-ladder trucks (one in reserve), and 5 hose-carriages (one in reserve). The department has 4,700 feet of

serviceable rubber hose and 2,000 feet of available leather hose, and 12 horses. In all, with its various supplies, the apparatus is valued at $150,173 50. The total expense of the department for 1879 was $16,629 43. There is a fire-alarm telegraph under a superintendent of fire-alarm, with 38 signal-boxes. Water for fire purposes is taken from 173 hydrants. A fire-marshal is regularly appointed, who has the supervision of all buildings, and who may order such changes in them as are deemed best. If his orders are disregarded the changes are made and the expense is charged to the estate in fault. During the year ending March 1, 1880, the force answered 33 alarms of fire. The total loss of property by fire was $77,970, on which an insurance of $21,415 was paid, leaving a net loss of $56,550. The area of the fire limit is 184 acres and the average width of the streets 60 feet. The city ordinances regulate the sale of petroleum, fireworks, and fire-crackers, and provide for the investigation of the causes of fire.

PUBLIC SCHOOLS.

Bridgeport has 13 school-houses with 66 rooms, exclusive of 9 recitation-rooms. These schools employ 84 teachers, and gave (in 1878–'79) instruction to 4,840 pupils. The school population is 6,362 between the ages of 4 and 16 years. The average membership in the day schools was 3,822, and the average daily attendance was 3,369.5.

MANUFACTURES.

The following is a summary of the statistics of manufactures of Bridgeport for 1880, being taken from tables prepared for the Tenth Census by William E. Disbrow, special agent:

Mechanical and manufacturing industries.	No. of establishments.	Capital.	Average number of hands employed.			Total amount paid in wages during the year.	Value of materials.	Value of products.
			Males above 16 years.	Females above 15 years.	Children and youths.			
All industries	170	$9,751,785	5,476	1,807	225	$3,342,935	$4,819,939	$10,458,212
Blacksmithing	6	23,225	22	.....	.....	11,400	17,450	39,770
Boots and shoes, including custom work and repairing	7	50,050	59	40	.....	40,968	84,059	153,764
Bread and other bakery products	8	17,000	40	3	.....	23,214	67,754	113,040
Carpentering	10	18,200	181	.....	2	71,926	133,050	228,428
Carriages and wagons	6	79,250	128	.....	.....	58,404	90,649	196,700
Confectionery	4	10,700	12	2	3	6,400	17,785	36,535
Cutlery and edge tools (see also Hardware)	3	213,000	434	55	30	226,200	174,275	443,800
Foundery and machine-shop products	11	222,726	392	.....	27	191,085	231,837	486,185
Furniture	6	171,000	136	1	.....	52,385	81,647	185,889
Hardware (see also Cutlery and edge tools)	6	261,850	205	18	9	96,081	148,740	324,876
Liquors, malt	6	121,000	27	.....	.....	12,798	72,560	122,943
Marble and stone work	6	113,200	70	.....	.....	37,371	35,000	98,600
Photographing	3	8,000	5	1	.....	3,350	2,000	11,000
Printing and publishing	7	77,000	62	.....	.....	35,744	34,962	85,559
Saddlery and harness	5	35,000	60	6	7	26,534	72,430	134,500
Shirts	7	112,950	71	531	.....	175,770	226,705	443,490
Springs, steel, car, and carriage	3	65,250	175	.....	.....	95,416	219,888	351,341
Tobacco, cigars and cigarettes	6	5,550	14	1	2	6,425	10,900	22,700
Watch and clock repairing	3	20,200	8	.....	.....	3,700	1,700	8,500
All other industries (*a*)	57	8,126,634	3,366	1,149	145	2,157,674	3,095,128	6,970,583

a Embracing ammunition; belting and hose, leather; bookbinding and blank-book making; boxes, fancy and paper; brass and copper, rolled; brass castings; buttons; carpets, other than rag; carriage and wagon materials; coffee and spices, roasted and ground; coffins, burial cases, and undertakers' goods; corsets; drugs and chemicals; electroplating; engraving and die-sinking; files; fire-arms; flouring and grist-mill products; hair-work; iron and steel; looking-glass and picture frames; mantels, slate, marble, and marbleized; millinery and lace goods; mixed textiles; musical instruments, organs and materials; paints; plated and britannia ware; rubber and elastic goods; sash, doors, and blinds; sewing machines and attachments; silk and silk goods; soap and candles; steam fittings and heating apparatus; tinware, copperware, and sheet-iron ware; toys and games; tools; upholstering; upholstering materials; varnish; wheelwrighting; wood, turned and carved; and wool hats.

From the foregoing table it appears that the average capital of all establishments is $57,363 44; that the average wages of all hands employed is $445 25 per annum; that the average outlay in wages, in materials, and in interest (at 6 per cent.) on capital employed is $51,458 71.

DANBURY,

FAIRFIELD COUNTY, CONNECTICUT.

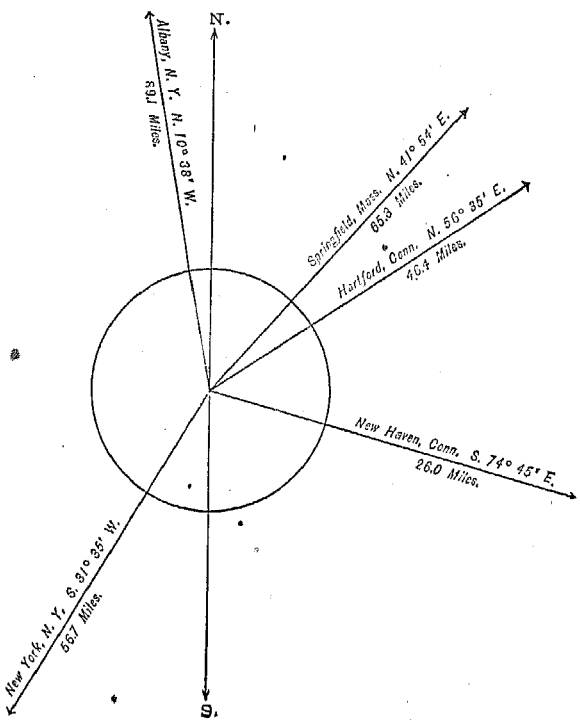
POPULATION

IN THE

AGGREGATE,

1800-1880.

	Inhab.
1790	.....
1800	3,180
1810	3,606
1820	3,873
1830	4,331
1840	4,504
1850	5,964
1860	7,234
1870	8,753
1880	11,666



POPULATION

BY

SEX, NATIVITY, AND RACE,

AT

CENSUS OF 1880.

Male	5,718
Female	5,948
Native	9,533
Foreign-born	2,133
White	11,458
Colored	*208

*Including 2 Chinese.

Latitude: 41° 24′ North; Longitude: 73° 26′ (west from Greenwich); **Altitude: 400 to 900 feet.**

FINANCIAL CONDITION:

Total Valuation: $5,136,529; per capita: $440 00. Net Indebtedness: $255,415; per capita: $21 89. Tax per $100: $1 24.

HISTORICAL SKETCH.

The settlement of Danbury, or Pahquioque, as it was orginally called by the Indians, was first begun in 1684, but it was not until the spring of the next year, 1685, when 7 families from Norwalk and 1 family from Stratford, Connecticut, moved in, that its permanent settlement can be said to have taken place. These settlers purchased their lands from the Indian owners and had the town surveyed and laid out, the survey bill giving the length of the town as 8 miles from north to south, and its breadth 6 miles from east to west. In 1702 an act of the general assembly granted town privileges to the inhabitants of Danbury and fixed the boundaries in accordance with the original survey. During the early part of its existence the town seems to have had no trouble from Indians, and slowly increased as

an agricultural community. In 1756 the population was 1,527, and in 1770 it had increased to 2,526. One Dr. Peters, in describing Danbury about this latter date, wrote: "It has much the appearance of Corydon, England, and forms 5 parishes."

In the latter part of the year 1776 the town was selected by the commissioners of the American army as a military depot, and large quantities of flour, beef, and various kinds of military stores were collected and stored. This coming to the knowledge of General Tryon, the British governor of New York, he, with a detachment of 2,000 men, left the city in April, 1777, and, landing near Norwalk, Connecticut, marched on Danbury, reaching the place in the afternoon of the 26th of the same month. There was little, if any, opposition to Tryon's march, and he not only destroyed all the public stores, but set fire to the town—19 dwellings, 1 meeting-house, and 22 stores and barns being consumed—and killed several of the inhabitants. The estimated private loss was given as nearly $81,000 when the inhabitants asked the state to re-imburse them for their losses. Generals Wooster, Arnold, and Sullivan, of the Continental army, gathered what men they could and hung on Tryon's flank on his return march to his shipping, inflicting considerable loss. The damage to the town was quickly repaired, and, notwithstanding the loss of public stores, it was again used as a depot. A guard for security and a general hospital were also maintained here until the close of the war.

The hatting business in Danbury seems to have taken root at an early day, for in 1780 mention is made of Zadoc Benedict, who made hats in a small shop near where is now the railroad station on Main street, employing 1 journeyman and 2 apprentices for the purpose, and turning out 1½ dozen hats per week—2 hats a day being the average rate for a good workman. The industry increased, and in 1808 there were 56 hat shops in Danbury, averaging from 3 to 5 men in each. Agencies were established in several of the southern states, factories gradually took the place of small shops, machinery of improved kinds came into use, and in 1859 there were employed in this business alone 1,294 men, turning out annually 123,870 dozens of hats. In 1855, paper boxes, in which hats were packed, began to be made, and as they formed a safe and convenient method of keeping the hats clean during transportation, the manufacture of them steadily increased. Among the earlier manufactures of the town were paper, boots and shoes, oil, nails, combs, etc. The most of them, however, were discontinued after different periods of existence; and now, in addition to hats, the manufacture of fur, paper boxes, hat-boxes, and shirts, with planing- and lumber-mills, machine-shops, and a furnace manufactory, comprises the leading industries.

In March, 1851, the railroad to Norwalk, Connecticut, was completed so that trains could be run over it, thus giving direct rail transportation to tide-water. Gas was supplied in 1857 and water was introduced in December, 1860.

DANBURY IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of Danbury:

LOCATION.

Danbury lies in latitude 41° 24′ north, longitude 73° 26′ west from Greenwich, in the northern part of Fairfield county and about 23 miles north of Long Island sound. The western limits of the town touch the state of New York. The average altitude above sea-level is 450 feet. The lowest point is 400 feet and the highest 900 feet above sea-level.

RAILROAD COMMUNICATIONS.

The Norwalk and Danbury railroad, to South Norwalk, Connecticut, connects with the New York and New Haven railroad between New York and Boston. A branch of the Housatonic railroad, termini Bridgeport, Connecticut, and Pittsfield, Massachusetts, touches the town.

TRIBUTARY COUNTRY.

The country immediately surrounding Danbury is mainly agricultural. In addition to farm and garden produce large quantities of milk are annually produced, not only for the supply of the town and for the manufacture of condensed milk, which is quite extensively carried on in the vicinity, but for shipment to New York.

TOPOGRAPHY.

The underlying soil varies in different parts of the town from a solid hard-pan to a very hard gravel almost impervious to water. The underlying rock is gneiss or granite. Variations of level are rather abrupt, with good natural drainage. The surrounding country is of about the same elevation as the town, partly wooded and partly clear and under cultivation. The soil does not differ from that on which the town stands. There are no marshes or ponds worthy of mention.

CLIMATE.

Highest recorded summer temperature, 102°; lowest recorded winter temperature, —12°. The highest summer and lowest winter temperature in average years was not reported.

STREETS.

There are 23 miles of streets in the town proper, none of which are systematically paved. At certain seasons of the year gravel is thrown on in an irregular manner wherever there appears to be need of it. The sidewalks are almost wholly of gravel and concrete, with but very little flagging. Gutters, when paved at all, are paved with cobble-stones. Tree-planting at the sides of the streets, is done quite extensively by abutters. The annual cost of streets, for construction and repair, is $3,000. The work has been done both by the day and by contract, but the former is preferred. There is one omnibus line to the village of Bethel, with 1 vehicle, 3 horses, and 1 man, and carrying annually 10,000 persons at 10 cents for each fare.

WATER-WORKS.

The water-works are owned by the town and cost $100,000. Water is supplied by gravitation, and the pressure in the mains is 85 pounds to the square inch. There are 15 miles of street-mains and supply-pipes, ranging in diameter from 10 to 4 inches, and 120 hydrants. The total annual expense for the works (1879) was $1,000.

GAS.

Gas is supplied by a private corporation. The town pays $22 per annum for each street-lamp, 87 in number.

PUBLIC BUILDINGS.

Danbury owns one building, used as a lockup and fire-rooms, and one engine-house. The total cost is $3,000.

PUBLIC PARKS AND PLEASURE-GROUNDS.

There are 3 small parks in the town, with an aggregate area of $1\frac{3}{4}$ acre. One is on Main street, between Wooster and Boughton streets, and 2 smaller plots on West and Franklin streets. The land was donated to the town, and the cost of construction has been slight. The yearly cost of maintenance is $100. The parks are controlled by a committee of 3 of the board of burgesses.

PLACES OF AMUSEMENT.

There is one theater in the town, with a seating capacity of 900. Each exhibition pays a license to the town of $5, amounting in the year to some $200.

CEMETERIES.

There are 10 cemeteries within the limits of Danbury:

Wooster Cemetery, situated above half a mile from the business center, has an area of 75 acres.

The other 9, containing from 1 to 2 acres each, are located in different parts of the town, and are but little used. No records have been kept of the number of interments. The depth of grave is usually 6 feet. Wooster cemetery is owned by a private corporation, organized under state laws. The land is undulating; there is a lake of a few acres, with a stream running through it, and the company has planted evergreens and deciduous trees. The price of lots, 22 feet square, ranges from $40 to $60, and smaller ones in proportion. The lot-owners are required to care for their lots. So far the sale of lots has covered the cost of land, improvement, and running expenses.

MARKETS.

There are no public or corporation markets in Danbury.

SANITARY AUTHORITY—BOARD OF HEALTH.

There is no regular board of health in the town, the board of burgesses acting as such. There are no expenses in ordinary times, but in case of an epidemic the expenses are not limited. In absence of an epidemic the board has authority to remove any thing it may deem prejudicial to health, and to correct abuses. The chairman presides at meetings, which are held weekly. All the members of the board have the same powers as police officers. When nuisances are reported they are inspected, and, if found to exist, ordered removed by the person responsible. Defective house-drainage, privy-vaults, cesspools, and sources of drinking-water are treated in the same way as nuisances when reported. The board exercises no special control over the conservation or removal of garbage, burial of the dead, pollution of streams, or removal of excrement.

INFECTIOUS DISEASES.

Small-pox patients are removed to a house built for the purpose on the town farm, about 1 mile from the thickly-settled portion of the town. No notice is taken of scarlet fever. Vaccination is not compulsory and is not done at the public expense.

All diseases, births, and deaths are reported to the town clerk, who records the same. He receives a fee for recording in each case, and the physicians receive a fee for reporting to him.

MUNICIPAL CLEANSING.

Street-cleaning.—The streets are cleaned by private effort, and with no regularity. The work is reported as being fairly well done, and the sweepings are generally used on land for manure.

Removal of garbage and ashes is done by the householders at their own time and in their own way. There are no regulations governing the matter, nor are there any data from which the cost may be determined.

Dead animals.—The carcass of any animal dying within the limits of the town must be buried by the owner. No special plan is designated, and as only one animal is reported to have died during the past year, the matter does not seem to demand much attention from the authorities.

Liquid household wastes and human excreta.—As there are no sewers in Danbury all liquid household wastes are run or thrown into vaults or cesspools, none being allowed to pass into the street-gutters. About 25 per cent. of the houses have water-closets and the balance privy-vaults. The cesspools and privy-vaults are all porous, have no overflows, and are cleaned by the owners when they see fit. If one is found to be a nuisance the board of health orders it cleaned. The night-soil is usually buried, none of it being allowed for manuring land within the gathering-ground of the public water-supply.

Manufacturing wastes are discharged into the streams.

POLICE.

The police force of the thickly settled portion of the town or borough is appointed by the warden and burgesses, and governed by them in accordance with such rules and regulations as may be enacted. The warden acts as chief of police, but receives no pay for the duty. The force consists of 4 policemen, who receive $12 50 per month each as pay. No uniform is required, though they wear blue coats with brass buttons, and each man carries a pistol and a club. The hours of service are from dark until 12 o'clock, and each man patrols 1½ mile of streets. The police made 200 arrests during the past year, mostly for drunkenness, and the persons were generally sent to jail. There were about 50 station-house lodgers during the same time, as against 100 in 1879. Special policemen are appointed by the warden and burgesses when needed. They have the same standing as the regular force, but receive no pay except legal fees. The annual cost of the force (1880) is $1,000. L. P. Treadwell, esq., who furnishes the above information says: "Much of the police business proper of the town is done by constables, of which it is nearly impossible to get accurate reports."

FIRE DEPARTMENT.

Total force, 125 men, all volunteers. The apparatus includes fire-engines, 1 hook-and-ladder truck, 4 hose-carriages, and 3,500 feet of hose. Total value of the apparatus, supplies, etc., $3,500. There are 2 buildings owned and used by the department, valued at $3,000. Total expense for the year 1879, $3,000. Alarms are given by one church-bell, and telephones in each company quarters.

HARTFORD,

HARTFORD COUNTY, CONNECTICUT.

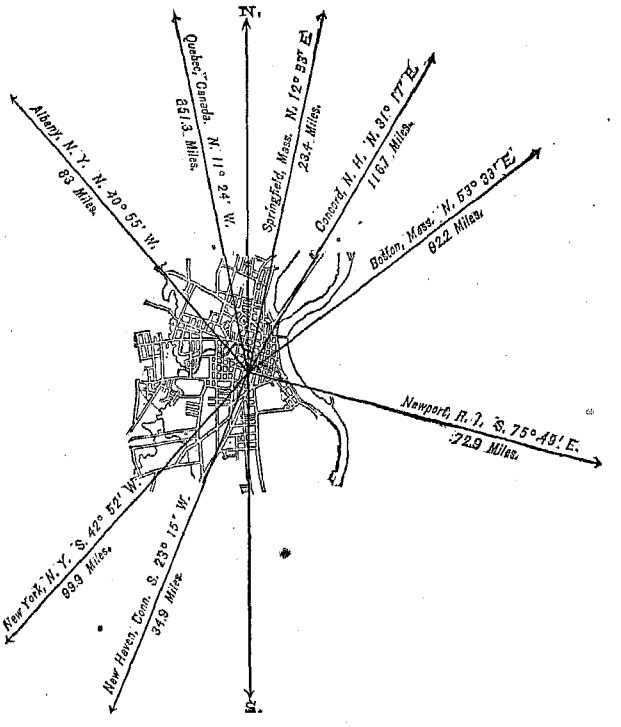
POPULATION

IN THE

AGGREGATE,

1800-1880.

	Inhab.
1790	.....
1800	5,347
1810	3,955
1820	4,726
1830	7,074
1840	9,468
1850	17,966
1860	29,152
1870	37,180
1880	42,015



POPULATION

BY

SEX, NATIVITY, AND RACE,

AT

CENSUS OF 1880.

Male	20,146
Female	21,869
Native	31,420
Foreign-born	10,595
White	40,682
Colored	*1,333

*Including 43 Chinese, 1 Japanese and 9 Indians.

Latitude: 41° 46′ North; Longitude: 72° 41′ (west from Greenwich); **Altitude: 27 to 144.5 feet.**

FINANCIAL CONDITION:

Total Valuation: $46,255,340; per capita: $1,087 00. Net Indebtedness: $3,689,855; per capita: $86 72. Tax per $100: $2 79.

HISTORICAL SKETCH.

The first real settlement at Hartford, Connecticut, was made in 1635 by a party of settlers who came from Cambridge, Massachusetts, under the leadership of their pastor, Thomas Hooker, and their leading elder, Samuel Stone. Although they were the first real settlers, they were not the first men to establish a permanent home in Hartford; for in 1633 the Dutch had built a fort upon the tongue of land at the junction of the Connecticut and Park rivers—now known as "Dutch point." This fort remained in the possession of the Dutch until about 1653, when, during the war between Holland and England, the general court of Connecticut allowed the settlers to capture this possession of the enemy.

The settlers from Cambridge at first called their town "Newe Towne", probably in honor of the home they had just left; but in 1636 changed the name to Hartford, in honor of the Rev. Samuel Stone, whose birthplace was Hartford, England. In the same year they purchased their land from the Indians, among whom it was known as "Suckiaug"—*black earth*—from the darkness and richness of the soil along the river-bank. The deed which was then obtained was unfortunately lost, and to make their title perfectly certain the land was repurchased in 1670 and another deed obtained. The first years of the town were years of trouble and distress, for famine at one time threatened, and in 1637 the Pequot war took place. Hartford furnished 42, including the commander and the chaplain, of the 90 men sent against the Pequot village. In 1638, Ludlow, Haynes, Wolcott, Hopkins, and Hooker set about framing a constitution, and in the next year completed their labors. The written constitution which they then formed contained the main points of nearly all our state constitutions and many of the Federal Constitution.

The first church was organized in Cambridge in 1633, and transplanted entire, the first meeting-house being built in 1639. From the first settlement until 1701 Hartford was the regular meeting-place of the general court of Connecticut. In 1644 an inn was ordered to be built, and in the following year semi-annual fairs were instituted. The first classical school was established in 1638, and, with the exception of Harvard college, the high school of Hartford is the oldest educational institution in the United States. In 1650 the first code of laws was drawn up, and it reduced the number of capital crimes from 160, as in England, to 15. In the same year a schism began in the church at Hartford, which, extending through the Connecticut valley, was not healed until one hundred and fifty years had passed. Hartford county was created in 1666, with Hartford as the shire town. In 1687 occurred the famous concealment of the charter of the colony in a hollow oak tree to preserve it from Sir Edmund Andros.

With the last decade of the seventeenth century Hartford began to be a manufacturing place, for in 1690 a fulling-mill was established and must have proved successful, since in 1706 there were three in the town, and in the next year 17,000 yards of woolen cloth were made there. Although prosperous, the town was smaller than many towns in the colony, and as late as 1756 was surpassed by 12 others. Until 1701, as has been said, Hartford was the only capital of the colony; but in that year the legislature decided to hold its October session in New Haven and its May session in Hartford. This arrangement was persisted in until the adoption of the state constitution in 1818, when Hartford was made the seat of government in the even years and New Haven in the odd. In 1875 this was again changed and Hartford was made the only capital city.

The trade of Hartford with the surrounding towns and with the West Indies was quite extensive. In 1717 a line of baggage-wagons was begun between Hartford and New Haven. The first newspaper was established in 1764 and called the *Connecticut Courant*. It is claimed that, with a single exception, this is the oldest paper in continued circulation in the world. The people of Hartford took an earnest part in the Revolutionary war, and it was here that the meeting was held and preparations were made that resulted in the capture of Ticonderoga by Ethan Allen in 1775.

In 1784 Hartford was made a city, and East Hartford, with a large portion of what is now Manchester, was set off as a separate town. Water was introduced into many houses in 1800 by a company which laid wooden pipes from a source of water where the orphan asylum now stands. During the war of 1812 occurred the famous Hartford convention, which met in the city December 15, 1814, and adjourned January 5, 1815, an event which has perhaps made Hartford as famous as her insurance companies and the story of the Charter Oak. In 1810 the Hartford Fire Insurance Company, the pioneer of the many insurance companies in the city, was incorporated.

The trade of Hartford was extensive and its influence great. In 1818 it had 850 dwelling-houses, 4 churches, 12 schools, 9 printing-offices, 22 lawyers, 12 physicians, and 87 establishments of various kinds engaged in trade. As early as 1772 Hartford had stage connection with Boston and New York; in 1820 a steamboat began to make regular trips to and from New York; and in 1839 a railroad was built connecting the city with New Haven. These are the steps in the history of Hartford's communication with other places. The railroads increased the city's importance greatly.

In 1845 a telegraph line, with copper wire, was made to Boston, but failing to work was replaced the same year by a successful line. Until 1850 there were but 3 bridges across the Park river, which is now spanned by 15.

Hartford is the seat of many institutions. In 1817 a deaf and dumb asylum was founded; in 1823 Trinity college was established; in 1824 came a retreat for the insane; and much later the Hartford hospital was built. The state capitol, which was completed in the present year, is a magnificient building, toward the cost of which Hartford contributed $1,100,000. The various fire and life insurance companies and the banking institutions in 1874 had assets of over $135,000,000, and besides this vast business the city is the headquarters of the Colt Fire Arms Company, the Hartford Carpet Company, the Collins Company, manufacturers of edge-tools, and other large concerns, all of which help to give wealth and influence to the city.

HARTFORD IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of Hartford:

LOCATION.

The city lies in latitude 41° 46′ north, longitude 72° 41′ west from Greenwich, on both banks of the Park river at its junction with the Connecticut. The highest point is 144½ feet above the sea-level, while the lowest is 27 feet above. The city is about 49 miles from Long Island sound by the Connecticut river, which at this point is navigable at low water for vessels of from 7½ to 8 feet draught. The tide, at low stages of water in the river, is sensible here and amounts to about 1 foot.

RAILROAD COMMUNICATIONS.

Hartford is connected with other principal eastern cities by the following railroads: The New York, New Haven, and Hartford railroad, with the Boston and Albany railroad at Springfield, Massachusetts; the New York and New England railroad, already finished from Providence, Rhode Island, to Waterbury, Connecticut, and fast pushing on to the Hudson river; the Connecticut Western railroad, from Hartford to Middletown, New York; the Connecticut Valley railroad, to Saybrook, Connecticut; and the Connecticut Central railroad from Hartford, with connections to Springfield, Massachusetts.

TRIBUTARY COUNTRY.

Nothing regarding this subject was furnished.

TOPOGRAPHY.

The underlying rock is Triassic shale and sandstone with intersecting trap-dikes and much drift. The country within a radius of 5 miles is open, with a soil of clay, sand, and alluvium. The natural drainage is into the Connecticut river.

CLIMATE.

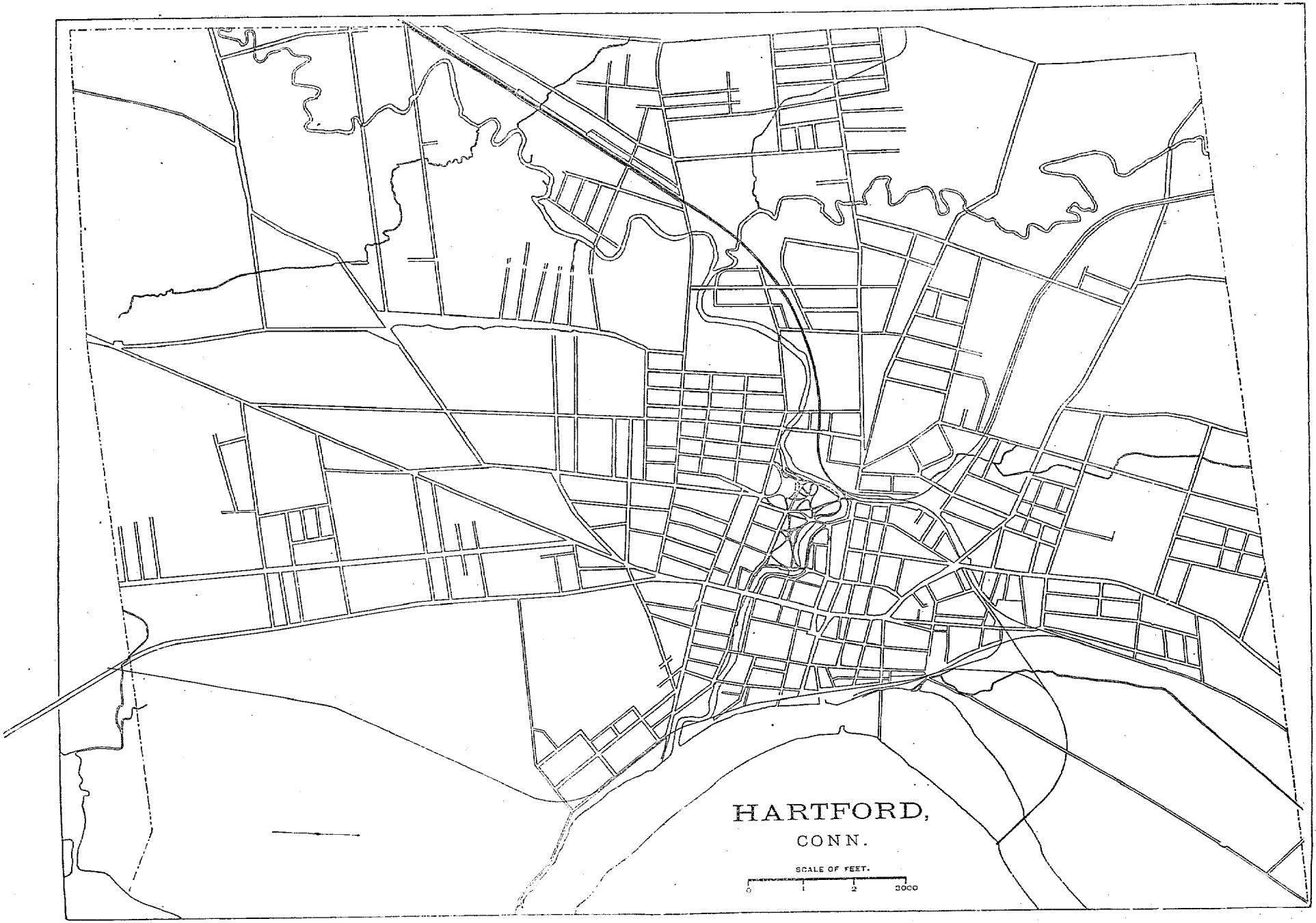
Highest recorded summer temperature, 96°; average summer temperature during the past ten years, 70.18°. The lowest recorded winter temperature, —30°; average winter temperature for the past ten years, 24.32°. The average yearly rainfall is 44.16 inches. The river makes the atmosphere moist, and the spring floods render it chilly for days.

STREETS.

Total length, 115 miles, 75 miles of which are paved with broken stone, costing, according to the locality, from 60 cents to $1 per square yard. The cost of keeping them in repair during the past year was about $2,500, while in keeping them clean $2,600 was spent. Both of these amounts are a fair average annual cost. The sidewalks are of Boston or North river flagstone, although in outlying districts plank walks are used temporarily. The gutters are laid with granite 1 foot wide and about 4 inches thick, laid against the curb-stones. All work on the streets is done by day labor, and the total expense per annum has varied in the past fifteen years with the public demands, from $50,000 to $190,000. A 20-ton steam stone-roller is used and gives the best results. The total length of horse-railroad in the city is 8½ miles. There are 26 cars in use and 119 horses. The roads employ 50 men, and carried during the year about 950,000 passengers, at an average rate of fare of 5½ cents. There are no omnibus lines.

WATER-WORKS.

The water-works are owned by the city, and their total cost has been $1,488,935. The largest part of the water-supply is derived by gravity from a number of small streams in West Hartford and Farmington. There are 3 storage reservoirs; the first and oldest, 5½ miles from the city, is 260 feet above the Connecticut river, and has a capacity of 156,600,000 gallons. The other 2 have a combined capacity of 438,000,000 gallons. Besides the gravity system, water is taken from the Connecticut river when required, and pumped directly into the mains, under a pressure of about 60 pounds. The average cost of raising 1,000,000 gallons 1 foot high is 8 cents. The yearly cost of maintenance, aside from the cost of pumping, is $25,000, and the yearly income from water-rates is $116,606. Water-meters are used to some extent. The mains vary in size from 3 to 20 inches, and those that are of cement and sheet-iron are fast being replaced by cast-iron pipes.


HARTFORD,
CONN.
SCALE OF FEET.
0
1
2
3000

GAS.

Gas is supplied by a private corporation, the Hartford City Gas Company, which charges $2 per 1,000 feet. The city pays $16 86 for each gas street-lamp, 1,242 in number. Including repairs and lighting, the total annual cost of each lamp is $23 44.

PUBLIC BUILDINGS.

The state of Connecticut presented Hartford with the old state-house for a city hall. The original cost was $50,000 in 1796. The total cost of the buildings owned by the city, and used for municipal purposes, is about $1,000,000.

PUBLIC PARKS AND PLEASURE-GROUNDS.

Hartford has 6 public parks, as follows:

Bushnell Park, the largest, is situated in the central part of the city, and contains 46 acres. The state capitol stands in this park. The land cost $946,070 06.

South Park, on Main street, at the junction of Weathersfield and Maple avenues, was laid out at the settlement of the city, and contains 3 acres.

The Tunnel Park, in the northern part of the city, at the junction of Main street and Albany avenue, has an area of 1 acre.

Washington Park, *Franklin Avenue Park*, and *Windsor Park* contain one-half acre each. All the above, except Bushnell park, are of triangular form between streets, and cost for construction, fencing, etc., $20,000. The annual cost of maintenance for all the parks is $6,500. They are controlled by a board of park commissioners.

PLACES OF AMUSEMENT.

Hartford has 9 large halls, used for theaters, concerts, lectures, etc. Roberts' opera-house seats 2,500; Albany hall seats 2,000; American hall and National Theater seat 1,000 each; Harbism's hall and Central hall seat 700 each; Dramatic hall seats 600, and Whittelsey's and Seminary halls seat 500 each. All exhibitions pay a license to the city, and in the past year $750 was received from this source. There are no concert- and beer-gardens in the city.

DRAINAGE.

There is no complete system for the sewerage of this city. Each case is determined in all particulars by the attending conditions and with a supposed regard for future requirements.

The sewers are almost entirely of brick; vitrified pipe sewers have been used, and cement pipes were formerly used to some extent, "but we have had such poor results from cement tile that we have abandoned its use".

Much information concerning the condition of drainage in Hartford is to be found in a report of a combined committee on the Park River nuisance, submitted to the city council October 23, 1880. In this report we are informed that—

> The first public sewer in Hartford was built in Ann street, at a cost of $840, in 1844, and between that time and 1855, when the Connecticut River water was introduced into Hartford, 32 sewers were constructed. * * * It has been said that Hartford has no sewer system, but that seems to be an error, at least in part, as a study of the sewers as built shows in each of the sections into which the city has been divided, in the effort to dispose of sewage, a trunk or large sewer, and small branches or laterals radiating from this trunk, and diminishing in size to their origins.
>
> The mistake in applying the system, and the faults of design or workmanship that may exist, are outside of the question under consideration.
>
> The plan has been to conduct the sewage by the readiest way to the nearest brook or natural stream draining the slope which sought relief. The instances are rare in which a sewer has cut through a ridge to discharge into another basin.
>
> Between Avon street and Arch street, out of Main street, the sewers find a ready outfall by a direct course to the Connecticut river, but in the other parts of the city the brooks or open meadows receive the sewage.
>
> Up to the present time Hartford has built 39.8 miles of sewers, at a cost of $530,000, and the growth of the city in territory and population demands additional expenditures. The city is divided by the Park river, which flows substantially through the middle of its area, its basin comprising 5,100 acres of the total city area of 8,358 acres. The sewage of this basin flows into Park river through 29 sewers, of from 18 inches to 10 feet in diameter, 20 of these entering from the north side and 9 from the south. In addition to the New Britain sewage, which empties into the South branch, the discharge of the main sewer in Asylum avenue, Farmington avenue, Laurel, Park, Broad, Hungerford, High, Asylum, Trumbull, and Main streets, and from a large number of private drains, the sewage from 551 acres of occupied land is poured through Gully brook and the culvert to Park river, and in this stream the ponding of the water by the dam has caused the deposit of large quantities of filth until the river is little better than a large uncovered cesspool, in which, under the heat of the sun, decomposition and fermentation of sewage are constant conditions.

No provision has been made for ventilating the sewers, except the recent adoption of perforated manhole covers.

The older sewers deliver above the ordinary level of the water in the rivers; all that have been built recently deliver below the surface.

The grades of the sewers are generally such that artificial flushing is not necessary, "storm-water giving us all necessary relief".

The cost of the trunk sewers is assessed partly on abutters, partly on others benefited or to be benefited by future extensions of the system. The whole cost of lateral sewers is assessed upon abutting property. Where the lots are of substantially the same depth, the assessment is by the front foot; where the difference of depth is considerable, that fact is taken into consideration.

The average cost of inlet-basins is $60. The average cost of manholes of average depth is $30. The cost of the work averages as follows:

Size.	Material.	Form.	Size of ring.	Feet in depth.	Cost per foot.
44-inch.....	Brick....	Circular.....	8-inch....	11	$5 10
30-inch.....	Brick....	Circular.....	8-inch....	14	4 59
24-inch.....	Brick....	Circular.....	4-inch....	9	1 63
18-inch.....	Brick....	Egg-shaped..	4-inch....	10	1 45
18-inch.....	Brick....	Egg-shaped..	4-inch....	10	1 28

The difference in the two last named was that one was in macadam road and hard clay, the other in a country road and sand. Prices vary so much from year to year, according to cost of material and price of labor, that the prices of one year offer very little ground for calculating cost for any other year.

From the report of the board of street commissioners for 1880, the following concerning the ventilation of sewers is quoted:

Attention has been called more than once in the annual report of this board to the important matter of traps and ventilators in house-drains whereby the poisonous gases generated in the close sewers may be conveyed out of the buildings instead of into them. As prevention is better than cure, the proper ventilation of the public sewers themselves may be of more benefit and importance than that of house-drains. The theory is that a manhole of proper size leading from the top of the sewer vertically to the surface of the street, and those capped with an open grating, will cause pure air to pass into the sewer, which, thus introduced there, will arrest or prevent the formation of the noxious gases—that is to say, if such manholes are placed at intervals of sufficient frequency. Experiment confirms the theory. No fetid stench or noxious gases arise from the manholes, because the pure outside air oxidizes the air in the sewer, and the poisonous gases are not generated in any considerable volume. And we are well convinced that the sewers in our city ought to be supplied with such ventilators.

The bed of Park river is in portions a rocky ledge and in others a silty deposit. Its natural current is obstructed by several dams. One of these, 9 feet high, above Main street, converts the river into a pond, which is a conspicuous feature of the central portion of the city and which bounds the park adjoining the capitol. There are other dams higher up the stream. It is stated with reference to the lower pond:

The water in the saw-mill pond is dark in color, filthy in appearance, and offensive in odor. Sewage, dead fishes, and vermin float about on the surface and are swept to and fro by the wind. The shore near Shelden street is about 2 feet above the river-bed, for half the width between high banks, and on this shore garbage is thrown down in places in large heaps, and sewage from drains spreads along through a rank growth of weeds over stones coated with slime.

Concerning the pond which borders the park, it is said that—

The bottom of the river seems very soft and covered with a deposit that gives off large quantities of gas when slightly disturbed. The water ponded here has no better appearance than that in the pond below. * * * The water ponded by the dams accumulates impurities from the constant flow of sewage, and it is purified but little even by a heavy rain, as the current fails to reach and scour out the foul deposits on the sides and bottom of the river.

In the center of the city, in addition to the filth deposited on the banks of the Park river, there is a surface of about 9½ acres (415,000 square feet) of foul water, giving off for many hours of the day the dangerous products of fermenting and decomposing sewage.

The committee, after considering the promise and cost of various schemes which have been suggested, adopted and recommended an intercepting sewer from 3 feet to 6 feet in diameter, following substantially the course of Park river, now on one side and now on the other, to a point of outlet at the Connecticut river. The total cost of carrying out this work is estimated to be $228,000, which it is recommended should be paid out of the common fund.

Incidentally the condition of the sewers in Hartford is indicated by the following extract from the committee's report:

The result is that in all the sewers deposits are formed and remain until decomposition ensues, and dangerous gases fill the sewers and drains to find their way into the confined air of houses whenever from a change of temperature, as by the admission of hot water or steam, or from the sudden filling of the sewers by storm-water, or by the blowing of the wind into exposed outlets, or from the warmer atmosphere of the houses, these gases are forced back through the sewer drains.

CEMETERIES.

There are 7 cemeteries in Hartford:

Cedar Hill Cemetery, situated in the extreme southwestern part of the city, between Maple and Newington avenues, is the largest.

Springfield Cemetery is on Capen street.

North Cemetery, between Main, Spring, and Cemetery streets, is close to Springfield cemetery.

Catholic Cemetery is just across Cemetery street from the North cemetery.

There is a Catholic cemetery on Bloomfield avenue, half a mile beyond the city limits.

There are two small cemeteries, now unused, one in the center of the city and the other on Maple avenue, about 1½ mile from the city center. Nothing further regarding cemeteries was reported.

MARKETS.

There are no public or corporation markets in the city.

SANITARY AUTHORITY—BOARD OF HEALTH.

Health committee.—The chief sanitary authority is vested in a health committee composed of 10 members, 8 of whom are physicians appointed annually by the city council and responsible to that body. The annual expenses of the committee are $600 as salary of the chairman, $400 as salary of one assistant, and such other sums as the work done makes necessary. The powers of the committee all depend on the common council, to which an application for extended authority must be made if the committee undertakes any thing beyond the most ordinary health duties. The chairman is the executive officer. He makes inspections as he thinks best. One assistant is employed. Any two members have power to order a nuisance abated. The committee has issued no special regulations.

NUISANCES.

No regular inspections are made, nuisances being ordinarily inspected only when reported. If a nuisance is found to exist a written order to abate it is served on the owner of the premises. If this is disregarded the owner is liable to a fine, and if it thinks best the committee can make the necessary abatement and charge the expense upon the estate. The committee seeks to remedy all defective house-drainage, privy-vaults, cesspools, sources of drinking-water, etc. The street department has charge of defective sewerage and street-cleaning. Garbage is removed by the city under the direction of the street department, but the health committee can interfere if a nuisance is created.

BURIAL OF THE DEAD.

No person can sell any coffin, or allow one to leave his possession, until he has received a certificate of death stating the age, sex, color, etc., and the cause of death of the deceased, signed by a physician or some responsible person.

INFECTIOUS DISEASES.

Small-pox patients are either quarantined at home or taken to a pest-house on the city farm. Scarlet-fever patients are expected to be isolated at home. In case of the breaking out of a contagious disease in the public schools the committee has only advisory powers. Vaccination is not compulsory, and is done at public expense only when so ordered by the common council.

REPORTS.

The health committee reports to the common council when requested so to do, and, if published at all, the report is published in the city year-book.

MUNICIPAL CLEANSING.

Street-cleaning is done at the expense of the city and with its regular force. The work is done wholly by hand, no sweeping-machines being used. The cleaning on the macadamized roads is done as often as is required to keep them free from dirt. The annual cost of this labor and of removing grass and weeds from the outlying streets is about $6,000. The sweepings are used for filling, some being sold for manure.

Removal of garbage and ashes.—All garbage and ashes are removed by the city with its regular force. The householders are required to keep them in suitable vessels convenient for removal, and there is no ordinance forbidding the keeping of garbage and ashes in the same vessel. They are used for filling up low lands. The annual cost to the city for this service is about $6,000. No injury to the public health is reported to have resulted from this system of final disposal.

Dead animals.—The carcass of any animal dying within the city limits is removed by the health committee and buried. No record of this service is kept, and the cost is merely nominal.

Liquid household wastes.—Chamber slops and kitchen and laundry wastes are run into the public sewers, none being allowed to go into the gutters. But few cesspools are used in the city. Those in use are porous and are unsupplied with overflows. They are cleaned when it is necessary.

Human excreta.—About two-thirds of the houses in the city are provided with water-closets, all of which empty into the public sewers, and the remainder depend on privy-vaults. None of the latter, or very few of them, are water-tight. All vaults are required to be not less than 6 feet deep, and not nearer than 30 feet to any public or

private way. They must be cleaned between the months of November and April between the hours of 11 p. m. and 5 a. m., and the contents removed in water-tight carts. The night-soil is used for manure, but none is allowed on land within the gathering-ground of the public water-supply.

Manufacturing wastes.—Liquid manufacturing wastes are run into the public sewers.

POLICE.

The police force of Hartford is appointed and governed by the board of police commissioners, consisting of 6 members—3 from each political party. The chief of police is the executive officer, and his duties are the general management of the force; his salary is $2,000 a year. The remainder of the force consists of 1 captain, salary $1,500 a year; 1 lieutenant, at $1,000 a year; and 40 patrolmen, paid only when on duty, at the rate of $1,000 a year each. There are 3 other members, set down as supernumeraries. The uniform is of blue cloth, and is similar to that worn by the New York city police. Each man furnishes his own, the suits costing about $50 each. The men are provided with clubs, are on duty 10 hours at a time, and patrol 60 miles of streets. During the past year 3,062 arrests were made, the principal causes being for drunkenness, breach of the peace, assault, larceny, etc. During the same time lost or stolen property to the value of $4,639 was recovered by the police and returned to the owners. The number of station-house lodgers during the past year was 986. The police force is required to co-operate with the fire department at all fires. No special policemen are appointed. The yearly cost of the force (1880) is $55,000.

FIRE DEPARTMENT.

The following in regard to the fire department is taken from the municipal register for the year ending April 1, 1879:

The fire department of Hartford is under the general charge of a board of fire commissioners composed of 6 members. The active force consists of 1 chief and 3 assistant engineers, 1 superintendent of fire-alarm telegraph, 6 steamer companies of 13 men each, 2 hose companies of 13 men each, and 1 hook-and-ladder company of 21 men, making a total force of 130 men. The apparatus consists of 7 steam fire-engines (1 held in reserve), 1 hook-and-ladder truck, 5 four-wheel hose-carriages, 2 two-wheel hose-carriages, and 4 hand hose-carriages, 2 being out of use. There are 15,750 feet of hose, of which 4,400 feet is Eureka hose, 8,000 feet leather hose, 350 feet rubber hose, 2,600 feet Boyd's riveted hose, and 400 feet stocking hose. The department owns 18 horses. The fire-alarm telegraph has 26 miles of wire and 42 signal-boxes. Water for fire purposes is taken from 318 public hydrants, and 4 private ones at Colt's factory. During the year ending April 1, 1879, there were 37 alarms, 2 of them being false. The total loss not covered by insurance was $126 25. The total amount destroyed by fire was $46,359 25, on which there was an insurance of $269,000. There is a fire-marshal, but no regulations or ordinances defining his duties were obtainable. The annual expense of the department (April 1, 1879) is $42,570 37.

MANUFACTURES.

The following is a summary of the statistics of the manufactures of Hartford for 1880, being taken from the tables prepared for the Tenth Census by George D. Bates, special agent:

Mechanical and manufacturing industries.	No. of establishments.	Capital.	Average number of hands employed.			Total amount paid in wages during the year.	Value of materials.	Value of products.
			Males above 16 years.	Females above 15 years.	Children and youths.			
All industries	268	$9,679,126	4,573	1,373	354	$2,848,041	$6,467,460	$11,437,200
Blacksmithing	11	7,515	22	.....	.....	13,127	9,610	37,000
Boots and shoes, including custom work and repairing	4	142,300	91	30	5	29,645	270,770	369,100
Bread and other bakery products	12	34,500	53	3	8	31,911	147,294	214,012
Brick and tile	3	11,050	20	.....	3	10,200	10,230	27,480
Brooms and brushes	3	14,500	12	6	.....	7,000	15,450	36,985
Carpentering	12	51,450	227	.....	.....	87,500	186,500	311,800
Carriages and wagons	7	54,050	81	.....	.....	34,428	40,288	97,531
Clothing, men's	49	112,686	300	100	40	157,205	330,834	657,212
Coffee and spices, roasted and ground	3	65,000	14	8	.....	11,000	153,000	195,000
Coffins, burial cases, and undertakers' goods	4	89,200	44	.....	.....	25,900	25,100	93,000
Dentistry, mechanical	5	9,500	7	.....	1	4,500	8,300	24,250
Flouring- and grist-mill products	3	122,000	45	.....	.....	25,168	401,448	465,296
Foundery and machine-shop products	12	1,007,000	671	.....	.....	367,433	288,387	821,705
Furniture	4	41,200	49	1	.....	26,772	39,000	78,900
Furs, dressed	5	33,000	12	63	.....	13,386	37,474	66,782

Mechanical and manufacturing industries.	No. of establishments.	Capital.	AVERAGE NUMBER OF HANDS EMPLOYED.			Total amount paid in wages during the year.	Value of materials.	Value of products.
			Males above 16 years.	Females above 15 years.	Children and youths.			
Liquors, malt	4	$170,000	32	.....	.....	$15,436	$87,117	$146,944
Looking-glass and picture frames	4	26,500	16	1	.....	9,925	24,000	38,500
Marble and stone work	7	266,100	55	.....	1	39,500	24,787	85,942
Masonry, brick and stone	4	7,500	59	.....	2	24,200	34,300	67,700
Painting and paperhanging	7	10,300	52	.....	.....	29,860	30,200	77,000
Photographing	4	21,000	14	5	.....	7,290	8,300	27,458
Plated and britannia ware	3	63,500	93	10	2	33,591	150,500	237,175
Printing and publishing	12	929,700	269	78	16	196,294	173,422	513,600
Roofing and roofing materials	3	11,100	40	.....	.....	10,292	33,521	112,500
Saddlery and harness	7	47,575	117	35	8	70,456	202,980	306,589
Shirts	3	7,250	4	50	.....	11,050	16,854	37,520
Tinware, copperware, and sheet-iron ware	6	21,000	32	.....	.....	17,041	32,055	60,930
Tobacco, cigars and cigarettes	9	13,800	47	7	1	26,845	29,193	73,632
All other industries (*a*)	58	6,288,850	2,095	976	267	1,502,386	3,606,046	6,156,257

a Embracing agricultural implements; awnings and tents; belting and hose, leather; bookbinding and blank-book making; boot and shoe uppers; boxes, cigar; boxes, fancy and paper; boxes, wooden packing; carriages and sleds, children's; confectionery; corsets; dyeing and cleaning; dyestuffs and extracts; electro-plating; engraving, steel; envelopes; files; fire-arms; gold and silver leaf and foil; hairwork; hardware; hardware, saddlery; iron forgings; lamps and reflectors; lithographing; liquors, distilled; lumber, planed; mattresses and spring beds; models and patterns; patent medicines and compounds; plumbing and gasfitting; pumps; sash, doors, and blinds; screws; sewing machines and attachments; soap and candles; steam fittings and heating apparatus; stereotyping and electrotyping; stone- and earthen-ware; silk and silk goods; trunks and valises; wirework; and wood, turned and carved.

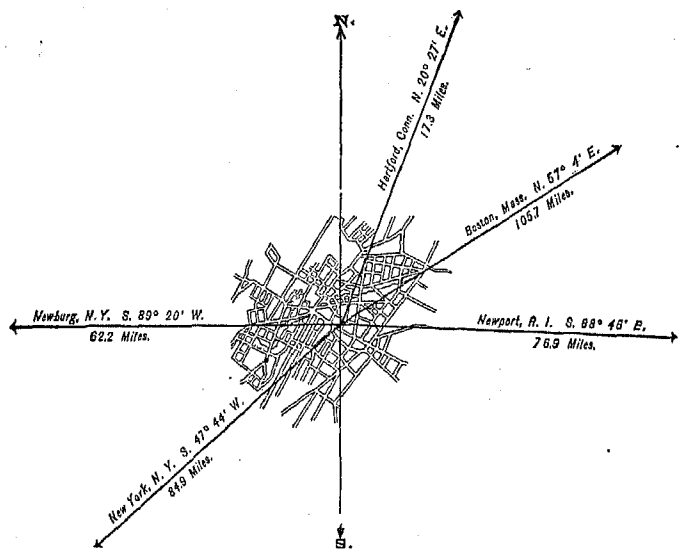
From the foregoing table it appears that the average capital of all establishments is $36,116 14; that the average wages of all hands employed is $452 07 per annum; that the average outlay in wages, in materials, and in interest (at 6 per cent.) on capital employed is $36,926 30.

MERIDEN,

NEW HAVEN COUNTY, CONNECTICUT.

POPULATION IN THE AGGREGATE, 1810-1880.

	Inhab.
1790	.....
1800	.....
1810	1,259
1820	1,309
1830	1,708
1840	1,880
1850	3,559
1860	7,426
1870	10,495
1880	15,540



POPULATION BY SEX, NATIVITY, AND RACE, AT CENSUS OF 1880.

Male	8,021
Female	7,519
Native	11,149
Foreign-born	4,391
White	15,375
Colored	*165

* Including 3 Chinese.

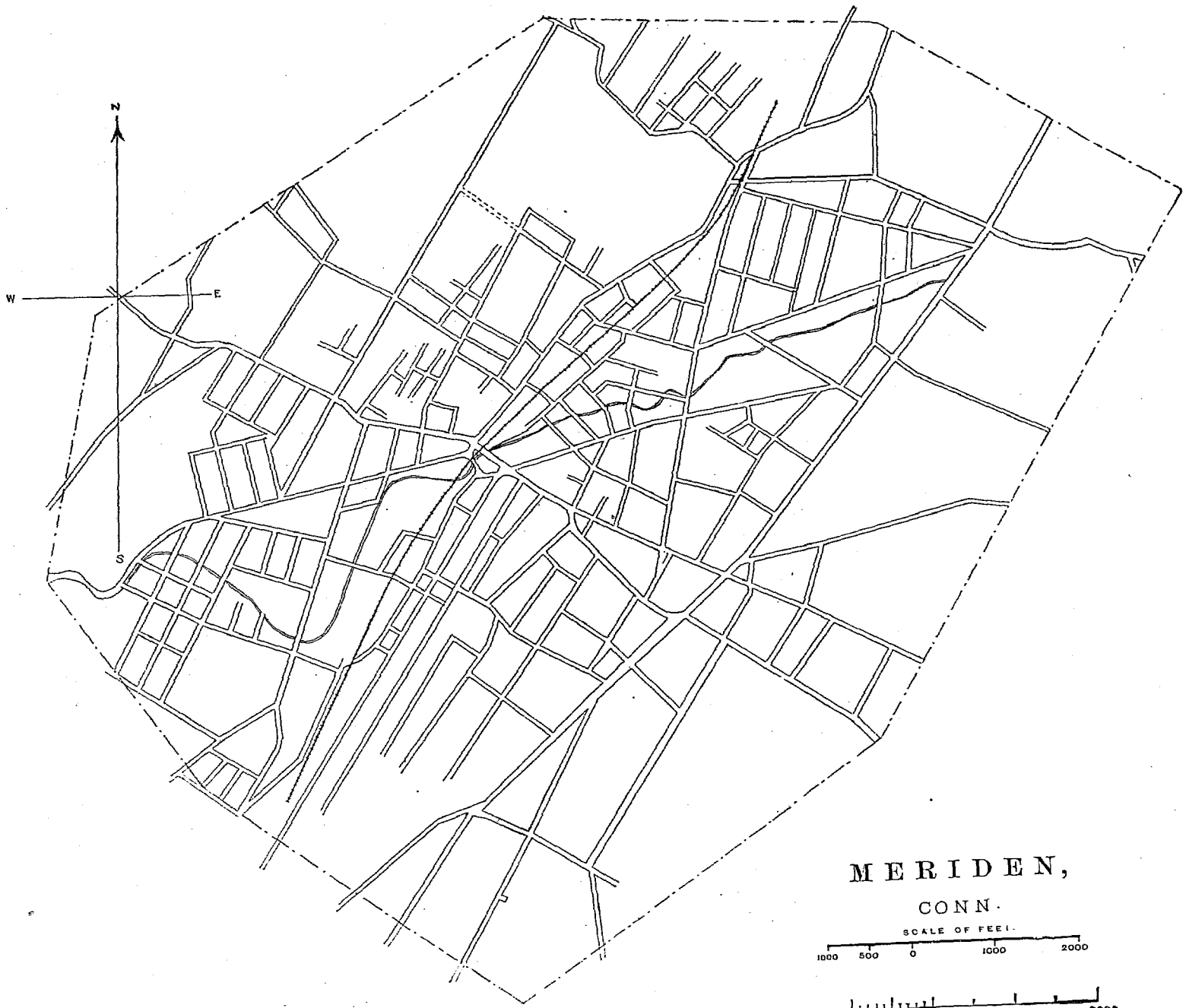
Latitude: 41° 32′ North; Longitude: 72° 48′ (west from Greenwich); **Altitude: 110 to 407 feet.**

FINANCIAL CONDITION:

Total Valuation: $8,875,819; per capita: $484 00. **Net Indebtedness: $798,317; per capita: $43 53.** **Tax per $100: $1 93.**

HISTORICAL SKETCH.

At or before the union of the colonies of Connecticut and New Haven, one Andrew Belcher was granted a tract of land of about 500 acres, midway on the road from New Haven to Hartford, on condition of his building a stone house or fort with loop-holes, and always to have a plentiful supply of ammunition and arms on hand. He was also granted a privilege of keeping a tavern in such house "forever". Mr. Belcher, it seems, did not come himself, but sent a representative who took possession of the land and built the house some time between 1660 and 1667. The place was called "Merden", after Mr. Belcher's English home, and the house, which became quite a noted stopping-place, stood for many years on the land that is now included in the northern part of the city of Meriden.



MERIDEN,

CONN.

SCALE OF FEET.

1000 500 0 1000 2000

1000 500 0 1000 2000

In the year 1669 the question was first agitated in New Haven of making a settlement on the plain lying to the north and east of that town, and measures were adopted toward effecting it. But on account of Indian troubles the matter was deferred until 1670, when, on May 12 of that year, the court of elections held at Hartford made a grant to the town of Wallingford of that territory previously assigned and set off to them by the town of New Haven, and defined the bounds as follows: "* * * shall come from the brook at the south end of the great plain to the northward, 10 miles, and from the said brook southward to Brandford bounds, and on each side of the river 5 miles * * * ". The plantation or settlement remained in the hands of trustees appointed from the town of New Haven until 1672, when it was incorporated as a town under the name of Wallingford, and the trustees resigned.

In 1724 the population of Wallingford was nearly 1,100 souls, and of these some 35 families had settled in the northern part of the township, on and near the Belcher farm. These families finding it difficult to attend service at the town meeting-house, owing to the distance and the bad condition of the roads, petitioned the town to form them into a separate parish. In the next year, 1725, this was done and the new parish was called "Meriden." In 1774 the population of Wallingford had risen to 4,915, and of these 852 lived in the Meriden parish.

The history of Wallingford from its early settlement was like that of all New England towns, and though the foundations of future prosperity were laid slowly and in the face of many difficulties, they were none the less firm. Agriculture was the chief resource and occupation, and owing to the fact that much of the township was covered by rocky and barren ridges, the dependence on this alone is a sufficient explanation of the slow growth of the town up to the early part of the present century.

In 1786 the parish of Meriden began to chafe under the authority of the mother town, and steps were taken to obtain a separate government. This Wallingford resisted, and with success, for after repeated petitions it was not until 1806 that the general assembly decided to make that part of the town heretofore known as "Meriden parish" a separate town under the name of "Meriden". At the first census, four years after the act of incorporation, the population was 1,259, a gain of 397 in thirty-six years. The increase for the next twenty years was not much, and it was not until after 1830 that the growth of manufacturing interests, now Meriden's chief source of prosperity, began to have a decided influence on her increase of population.

As early as 1791–'94 the making of cut nails and pewter buttons was carried on in Meriden. In 1819 a manufactory for making ivory combs with the most improved machinery then known was established. In 1832 coffee-mills were largely made. In 1833 the Meriden Britannia Company was incorporated, and in 1834 a factory producing American cutlery was built. In 1836 the railroad from Hartford to New Haven was opened through the town, and the increased facilities thus offered to the manufacturers to dispose of their products was soon felt. Prior to this, peddlers had taken most of the articles from the Meriden factories and carried them about the country for sale in their wagons. In 1838 the manufacture of German or nickel silver was begun in the Humiston mills. New industries made their appearance nearly every year, and those already in operation increased their producing powers. In 1849, ivory combs, cutlery, small iron castings, coffee-mills, iron pumps, brass fittings, britannia, japanned, and tin ware, German or nickel silver, fire-arms, harness-trimmings, carpet-bags, notions, etc., were made, and their manufacture gave employment to over 700 operatives. There was no falling off in Meriden's prosperity during the next ten years, and in 1860 some of her manufacturing establishments had grown to quite large proportions, noticeably the Britannia Company, which alone gave employment to about 900 operatives.

In July, 1867, Meriden received a city charter. There have been no severe fires, and the city has not suffered as much as other places in the state during the recent period of depression.

MERIDEN IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of Meriden:

LOCATION.

Meriden lies in latitude 41° 32′ north, longitude 72° 48′ west from Greenwich, 18 miles from New Haven, and the same distance from Hartford. The altitude above mean sea-level is 126 feet at the railroad crossing on Main street. The lowest point is Andrew's dam, 110 feet, and the highest, 407 feet, at a point 1,300 feet south of Main street on the eastern limit of the city, above mean sea-level.

RAILROAD COMMUNICATIONS.

The New York, New Haven, and Hartford railroad passes through the city, and as it is a trunk line between New York and Boston, it gives frequent communication between these points.

TRIBUTARY COUNTRY.

Farmers in the vicinity bring large amounts of hay, straw, and ordinary farm produce to the city. Small fruits are raised for this market, and grapes, to some extent, are shipped to outside cities. Tobacco is cultivated to a considerable extent and brought here for a market. Several villages and hamlets in the vicinity are engaged in manufactures and are connected with establishments in the city.

TOPOGRAPHY.

The following regarding the topography of Meriden was furnished by S. C. Pierson, esq., civil engineer:

The city lies between high trap-rock hills, the Hanging hills in the northwest (highest point 1,025 feet above mean sea-level), being about 5 miles from Beseck mountain on the east—Cat Hole mountain, mount Laurentian, and Hall mountain lying north and northeast of the city. The mountains themselves are of the shelving and precipitous formation, sloping gradually to the north and abrupt on the south. The valley in which the city is located lies generally in rolling ridges or mounds, having, like the stream—Harbor brook—which flows through the place, a northeast-and-southwest trend. The valley has a grade of 22 feet to the mile. The underlying rock is red sandstone, cropping out frequently. Quarries are worked extensively for home use. The products vary in texture, generally of good quality, much harder and firmer stone being found than in the east at New Haven. In the vicinity of the railroad the underlying rocks roll and pitch notably. The hills show drifts and the flat valley stratified deposits. Through the valley of the brook the soil is alluvial 3 or 4 feet (in the immediate vicinity), and farther from the brook stratified red sandstone of fair grit is excavated. Under the former is a stratum 6 inches thick of hard-pan, and beneath that, fine sand of the nature of quicksand. Soundings of this sand at some points show 50 feet depth. The soil generally of the city is soft gravel, red clay, and rich loam. Great variety of levels, some street grades as high as 15 to 100 feet. Drainage good—few basins—all can be drained into Harbor brook or its tributaries. Some lowlands, in center of city, of small extent. There are 3 or 4 acres of marsh-land inside the city and several small ponds that furnish water-power. Country, 5 miles radius, perhaps half woodland. Soil loam on north, east, and west; sand south after 10 miles.

CLIMATE.

As no record of temperature has been kept, the following figures are estimated: Highest summer temperature, 101°; highest summer temperature in average years, 90°. Lowest winter temperature, —28°; lowest winter temperature in average years, —5°. Andrew's pond being a cesspool and the wind in summer generally coming from the southwest, returns malarial poison more or less. The mountains in the vicinity break the cold winds, while the open country to the south allows the breezes from Long Island sound to reach the city.

STREETS.

Total length, 40 miles. Of these, 350 feet is paved with stone blocks, at a cost of $1 25 per square yard; 2.57 miles of Tilford (broken stone) pavement, at 75 cents per square yard, and the balance is generally turnpiked—cost not stated. Block pavement costs but little for repairs, and in some quarters cleans itself at each rain. This class of pavement, for good bottoms, heavy travel, and when exposed to wash, has been found the cheapest. There are 25 miles of sidewalks laid with North River flagstones 4 or 5 feet wide. Plank walks are but little used, and there is but half a mile of so-called asphalt. Curbs are set where there are flagstone walks, and the gutters, when curbs are set, are laid with cobble-stones. Trees are set by the abutters between the curbs and flags, ordinarily 25 feet apart. Maples prevail, though elms are planted to some extent. No organized efforts have been made to regulate and extend the planting, but property-holders have followed their own fancies. An effort is made by the city officials to save all the larger trees by changing the grade and direction of street when it can be done. The work on streets is both by day and by contract, and the annual cost varies from $45,000 ten years ago, to $15,000 last year. A steam stone-crusher is used at the quarry to prepare the stone for streets. There are 3 or 4 omnibuses in the city, and the rates of fare are 10 cents each.

WATER-WORKS.

The water-works are owned by the city, and their total cost has been $350,000. Water is impounded in a reservoir of 75 acres area, with a capacity of 300,000,000 gallons, about 1 mile from the city, and is distributed from there by gravity. The reservoir is 250 feet above the city, and the pressure in the mains at the lowest point is 118 pounds to the square inch. During the past year the daily consumption of water was 1,000,000 gallons; the expenditures were, for maintenance, repairs, and extensions, $5,799 39, and for interest and sinking fund, $24,350; and the receipts were $32,561 74. Meters are used to only a small extent. There are 24 miles of distributing-pipe, 190 fire-hydrants, and 1,700 taps. The city pays $30 annually for each hydrant.

GAS.

The gas-works are owned by a private corporation, and the daily average production is 27,000 cubic feet. The charge to consumers is $3 per thousand. The city pays $25 annually for each gas street-lamp, 133 in number. In addition there are 210 gasoline street-lamps.

PUBLIC BUILDINGS.

The city owns and occupies for municipal purposes, wholly or in part, 1 station-house and 4 hose-houses. The total cost of the buildings was $22,000. The city uses a part of the town building for court-room, council-chamber, mayor's office, etc., at a yearly rent of $700.

PUBLIC PARKS AND PLEASURE-GROUNDS.

There are no public parks or squares in Meriden.

PLACES OF AMUSEMENT.

The opera-house, with a seating capacity of 1,000, is strictly a theater. The town hall, with a seating capacity of 1,200, is fitted for theatrical exhibitions, but can be used for a variety of purposes. There are also several society halls used for concerts, dances, etc. The above pay no licenses as buildings, but all exhibitions pay the city from $4 to $5 for each performance.

DRAINAGE.

Mr. S. C. Pierson replies as follows regarding the drainage of Meriden:

Plan and report of Mr. E. S. Chesbrough for sewering the city adopted by council in 1878. People in Hanover, Galesville, and Wallingford, below us on the stream in which it was proposed to deposit sewage, have thus far opposed before the legislature the proposed plan. We are yet without public sewers, draining surface-water by gutters and shallow pipes to the streams running through the city, and parties are allowed or not prevented from draining their own pipes into the same streams. City officials watching plans adopted in other cities, and citizens generally expecting proper plans to be introduced and carried out. Majority of our citizens probably content to wait some years before spending a sum necessary for permanent system. Health of city generally good. Death rate not higher than in New Haven, which is well sewered. It is not considered necessary to send the plan, no part of which is executed, or at present likely to be.

CEMETERIES.

East Cemetery, area 4 acres; *West Cemetery*, same size, and *Catholic Cemetery*, area 10 acres, are all inside the city limits. *Walnut Grove Cemetery*, area 60 acres, is 1½ mile south of the railroad station. There is an old cemetery in the eastern part of the city, area one-quarter of an acre, and *Center Cemetery*, area 4 acres, that are no longer used for interments. Previously to 1880 no record of burials was kept. During the past year 226 interments were made, as follows: West cemetery, 76; East cemetery, 47; Walnut Grove cemetery, 13; and Catholic cemetery, 90. Burial permits are required, and the sexton is required to make monthly reports of all burials, removals, and disinterments. There is no limit of time after death for burial, and the depth of graves is 5 feet. Walnut Grove cemetery is owned by a private corporation and is kept on the lawn plan, the grounds being handsomely laid out and the roads kept in good condition. The price of lots is from 15 to 30 cents per square foot, and owners are allowed to ornament the same with small shrubbery. The West cemetery also belongs to a corporation, and lots in it are sold.

MARKETS.

There are no public or corporation markets in Meriden. Farmers and hucksters are allowed on all the streets, but they usually stand on State street near the Main Street railroad crossing.

SANITARY AUTHORITY — HEALTH COMMITTEE.

The chief sanitary authority of Meriden is vested in a health and nuisance committee, composed of 1 alderman and 4 councilmen, appointed annually by the city council. It meets once a month, and the members receive no pay for this service. The annual expense of the committee in ordinary times is $1,000, for salaries of health officer and patrols, and the removal of garbage, while during an epidemic the amount can be increased to any sum the city council may direct. In absence of an epidemic the committee has authority over the general sanitary condition of the city, and during an epidemic it has such powers as the city council may delegate. The chairman is the executive officer, but receives no pay. During the summer months a health officer, to look after nuisances, and a man to patrol the streams, to keep them in good sanitary condition, are employed. When nuisances are reported they are ordered abated, and if this is not done in a reasonable time after notice has been served, the committee has it done and the expense charged to the property on which the nuisance existed. Defective house-drainage, privy-vaults, cesspools, and sources of drinking-water are inspected and ordered to be put in good condition. The committee has control over the removal of garbage, and requires permits for the burial of the dead.

INFECTIOUS DISEASES.

Small-pox patients are removed to the pest-house, at the work-house outside the city limits. Scarlet-fever patients are not isolated. The committee closes the public schools on the breaking out of contagious diseases. Vaccination is compulsory and is done at the public expense.

The registration of all diseases, births, and deaths is made by the town clerk—all physicians reporting to him monthly.

REPORTS.

The committee reports annually to the city council, and the report is published with the annual city documents.

MUNICIPAL CLEANSING.

Street-cleaning.—The streets are cleaned at the expense of the city and with its own force. The work is done wholly by hand, no sweeping-machines being used. There is no regular time for cleaning, and when the streets get "too thick for comfort", they are scraped and the dirt taken outside the city—most of it being used for manure. The annual cost to the city for this is from $700 to $800.

Removal of garbage and ashes.—All garbage is removed by the city, under contract, at a cost of $300 per annum. It must be set out in receptacles, approved by the health officer, convenient for removal from the sidewalks within five hours after being deposited. The garbage must be kept unmixed with ashes, and it is taken out of the city. Householders remove their ashes at their own expense.

Dead animals.—The carcass of any animal dying within the limits of the city must be removed and buried by the owner at his own expense. In case the owner fails to do this, the work is done by the city and the cost collected from him. The expense is only nominal, as there are not more than half a dozen cases in a year.

Liquid household wastes.—Nearly all the liquids from the houses are run either into the streams or into cesspools; very little goes into street-gutters, as it is not allowed. The cesspools are mostly porous, though they are supposed to be tight if within 35 feet of any well; are not provided with overflows, receive the wastes from water-closets to a large extent, and must be cleaned between the first days of January and June of each year, or when ordered by the health officer.

Human excreta.—About one-quarter of the houses in the city are provided with water-closets delivering into either cesspools or streams, and the rest depend on privy-vaults. These latter must not be less than 18 inches nor more than 3 feet in depth, without the written permission of the health officer, and must be constructed water-tight if within 35 feet of a well, spring, or running stream used for domestic purposes. They must be cleaned at night, and between January 1 and June 1. The night-soil is taken out of the city and used by farmers as manure. None is used near the gathering-ground of the public water-supply.

Manufacturing wastes go largely into the streams within the city limits.

POLICE.

The police force of Meriden is appointed by the court of common council, the members holding offices during good behavior, and is governed by the mayor and a committee on police. The chief of police is the executive officer of the force, and controls it in accordance with rules and regulations making the usual provisions. He receives a salary of $2 75 per day. The force consists of 1 captain and 4 patrolmen, who receive $2 50 a day each. The uniform is "metropolitan," and the men furnish their own. Each patrolman carries a club and a pistol, which he furnishes himself, and a pair of handcuffs provided by the city. The hours of duty are ten hours day and nine hours night, and the length of streets patrolled by the force is about 5 miles.

During the past year there were 492 arrests made, the principal causes being: Intoxication, 231; assault, 89; theft, 37; breach of the peace, 16; burglary, 10, etc. Disposed of as follows: Paid fines and costs, 143; committed, 124; appealed and bound over to supreme court, 41; bonds forfeited and discharged, 182. The total amount of property lost or stolen during the year and reported to the police was $1,500, and of this $850 was recovered and returned to the owners. There are no station-house lodgers, all tramps being sent to the town house. The police attend all fires and take charge of the property until claimed by the owners. Special policemen are appointed the same as regulars, and receive the same pay when called on for duty by the chief of police. The yearly cost of the force (1880) is $4,850.

FIRE DEPARTMENT.

The annual report of the chief engineer for the year ending December 1, 1880, shows: The force of the department consists of 1 chief and 1 assistant engineer, 5 foremen, 5 assistant foremen, 5 company clerks, and 53 privates—total, 70. The apparatus includes 4 two-wheel hose-jumpers, 1 four-wheel hose-carriage, 1 hook-and-ladder truck on duty, and 1 four-wheel parade-carriage in reserve. There is also 1 volunteer hose company. There is 4,900 feet of hose, and water for fire purposes is taken from 190 hydrants. During the past year there were 27 fires and alarms. The total loss was $22,005 49—$3,462 35 on buildings, $18,543 14 on personal property. The total insurance involved was $92,345.

MIDDLETOWN,

MIDDLESEX COUNTY, CONNECTICUT.

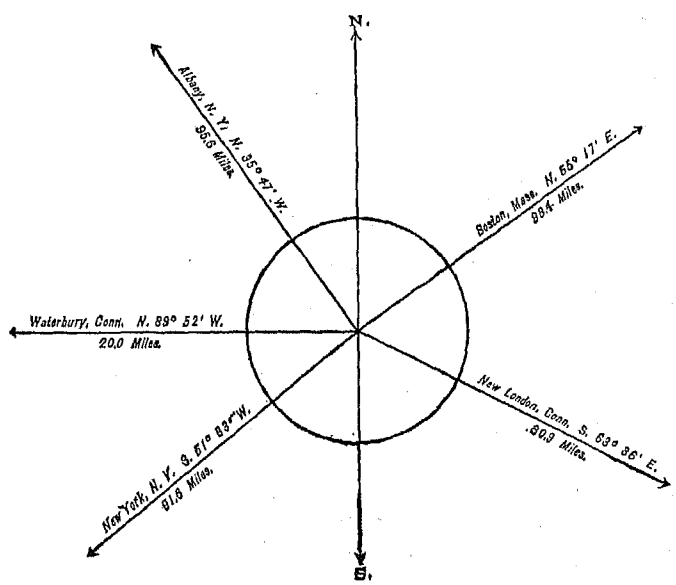
POPULATION

IN THE

AGGREGATE,

1800-1880.

	Inhab.
1790	.....
1800	5,001
1810	2,014
1820	2,618
1830	6,892
1840	3,511
1850	4,211
1860	5,182
1870	6,923
1880	6,826



POPULATION

BY

SEX, NATIVITY, AND RACE,

AT

CENSUS OF 1880.

Male	3,176
Female	3,650
Native	5,355
Foreign-born	1,471
White	6,673
Colored	*153

*Including 2 Chinese and 1 Indian.

Latitude: 41° 33′ North; Longitude: 72° 39′ (west from Greenwich); **Altitude: 5 to 230 feet.**

FINANCIAL CONDITION:

Total Valuation: $6,033,687; per capita: $514 00. Net Indebtedness: $1,407,500; per capita: $119 97. Tax per $100: $2 68.

HISTORICAL SKETCH.

In 1646 the general court of Connecticut appointed a committee for the planting of Mattabessett on the Connecticut river, and in 1651 the court ordered "that Mattabessett shall be a town". The following year the first meeting-house was built and the new town for the first time was represented in the general court. In 1653 the name was changed to Middletown, probably because it lay midway between the towns up the Connecticut river and Saybrook at its mouth. In the next year the town records show 31 names on the tax-lists. The original bounds of the township as purchased from the Indians included all the land between Wethersfield and Haddam, "to run from the great river the whole breath 6 miles east, and from the great river west as far as the general court

of Connecticut has granted the bounds should extend". In the latter half of the last century quite a trade grew up with the West Indies, and this aided agriculture. From the Revolution until after the war of 1812, Middletown was at a standstill, its trade with the West Indies having been lost. In 1815 a few enterprising persons began to engage in manufactures, and as the numerous streams in and about the township offered good water-power, the transition of Middletown from an agricultural to a manufacturing city began. Middletown was made a city in 1784. It is the seat of Wesleyan university and of the state insane asylum.

MIDDLETOWN IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of Middletown:

LOCATION.

Middletown is situated in latitude 41° 33′ north, and longitude 72° 39′ west from Greenwich, on the west bank of the Connecticut river, about 40 miles from Long Island sound. The depth of the water varies from 8 to 20 feet, and the harbor can accommodate about 50 vessels. The tide rises and falls 2½ feet at Middletown; vessels of 10 feet draught can pass up the river to the city. Highest point, 230 feet; lowest, 5 feet above mean low water.

RAILROAD COMMUNICATIONS.

The city is connected with Hartford and Saybrook by the Connecticut Valley railroad; with New York, New Haven, and Hartford by the Berlin branch of the New York, New Haven, and Hartford railroad, and with Boston by the New York Air Line railroad, whose termini are Willimantic and New Haven.

TRIBUTARY COUNTRY.

The country immediately about Middletown is chiefly agricultural, devoted mainly to market-gardening. Some of the streams in the city are used for manufacturing-purposes. The trade of this region is largely with Middletown.

TOPOGRAPHY.

The city is situated at the eastern edge of the Connecticut Valley red-sandstone basin of the Triassic or Jurassic age. East of the city is a metamorphic region of rock of the Archæan or Paleozoic age; the rock is chiefly mica-schist and gneiss. In the western part of Middletown are trap ranges intersecting the sandstone; one of these rises into a ridge several hundred feet high. The city is built partly on the river bottom and partly on a terrace more than 150 feet high. The soil is mostly a reddish sandy loam, derived from the disintergration of the red sandstone; eastward it is a gray material derived from the metamorphic schist. The natural drainage is to the Connecticut river. The country is open, although the hills are generally wooded.

CLIMATE.

The highest recorded summer temperature was, August 1, 1864, 100°, the average highest for twenty-two years being 94.6°. The lowest recorded winter temperature was, January 30, 1873, −30°, the average lowest being −10.6°. The mean annual temperature is 48.23°; the mean annual precipitation, 47.69 inches. The spring floods in the Connecticut make the city cold and disagreeable at that season; in all seasons hills on the east, south, and west protect the city from winds blowing from those points.

STREETS.

Middletown has about 18½ miles of streets, 150 rods of which are paved with broken stone, about 90 rods with stone and gravel mixed, while the balance are of dirt. The sidewalks are generally of North River flagstone, though there are some asphalt walks. The curbstones are of Haddam gneiss about 4 inches wide, and the gutters generally of the same material laid flat. Trees are planted by the abutters with the permission and under the supervision of the street commissioner. Work on the street is done by the day, and costs generally about $3,500 a year. There are no horse-railroads or omnibus lines.

WATER-WORKS.

No information was returned in answer to questions in regard to the water-works of Middletown, but the annual report of the water commissioners for 1880 shows that the system is a gravity system, the supply coming from a reservoir distant about 5 miles from the city. The receipts from water-rates were $15,305 16; the whole expenses, $12,578 62.

GAS.

No information was furnished regarding this subject.

PUBLIC BUILDINGS.

The total value of the buildings owned and used by the city, in whole or part, for municipal purposes is about $123,000. The town hall is valued at about $15,000, the city's portion being worth about $3,500.

PUBLIC PARKS AND PLEASURE-GROUNDS.

The total area of the public parks is 5 acres. *Washington Square* has about 4 acres, and upon it is raised each year a crop of hay, from the sale of which enough money is raised to keep the parks of the city in repair. They are controlled by the committee on public property.

PLACES OF AMUSEMENT.

There is no regular theater. McDonough hall, seating 774, is used by occasional traveling shows. The city draws a slight revenue from licenses, which every entertainment must obtain. There are no concert- and beer-gardens.

DRAINAGE.

In answer to the questions concerning the sewerage of Middletown, the mayor replied:

We have had but little work done of this kind during the past ten years, and the obtaining of the information called for in this blank involves much labor and expense, which would be of so little benefit to ourselves and others that it is thought best to do nothing regarding the same.

CEMETERIES.

Middletown has 8 cemeteries, as follows:
Indian Hill Cemetery, in the western part of the city; area, 40 acres.
Catholic Cemetery, in the northern part of the city; area, 12 acres.
Old Riverside Cemetery, also in the northern part; area, 2 acres.
Mortimer Cemetery, in the city center; area, 4 acres.
Washington Street Cemetery, in the western part; area, 4 acres.
College Cemetery, at the Wesleyan university; area, 1 acre.
Pine Grove Cemetery, about 2 miles south of the city hall; area, 20 acres.
Farm Hill Cemetery; area, 12 acres.

Interments are still permitted in all these. Indian Hill cemetery is the largest and finest. All seem to belong to private corporations. Burials generally take place within three days after the death. Graves of adults must be from 5 to 6 feet deep; of children, 3 feet deep. No complete record of interments has been kept. Permits must be obtained of the city registrar before a burial will be allowed.

MARKETS.

There are no public or corporation markets in the city.

SANITARY AUTHORITY—BOARD OF HEALTH.

The chief sanitary authority of Middletown is a board of health of the town of Middletown, of which the city forms a part. Although there is a city organization of a health committee, it amounts to nothing. The board of health is appointed annually by the selectmen. There are 3 members, none of them being physicians. In absence of an epidemic the board has no regular expenses; during an epidemic it can increase its expenses without limit. Its authority ordinarily is limited to power to enter premises and order nuisances abated; in case of an epidemic the authority is without limit. The chief executive officer is the president of the board, who receives no salary. No assistants or inspectors are employed except a consulting physician. The board is appointed by the selectmen and justices of the peace. It meets when occasion requires.

NUISANCES.

Nuisances are inspected only as reported. If found to exist, an order to abate is given, and if this is disregarded by the owner, the abatement or removal is made by the board. No control is exercised over the conservation and removal of garbage. The burial of the dead is regulated by the state laws.

INFECTIOUS DISEASES.

Small-pox patients are generally taken to the town pest-house about 2 miles from the city limits; sometimes they are quarantined at home. Scarlet-fever patients are not quarantined or isolated in any way. The board would take cognizance of the breaking out of contagious diseases in the schools only in rare and very pressing circumstances. Vaccination is compulsory only when specially so ordered, and is done at public expense in such cases. The registering of births and deaths is under the state laws. No report of the board is made or published.

MUNICIPAL CLEANSING.

Street-cleaning is done by the city with its own force and wholly by hand labor. It is done as occasion requires, no separate account of the cost being kept. The sweepings are generally used as manure; if not, they are used as filling. The system is said to be satisfactory.

Removal of garbage and ashes.—This is done by contract at the expense of the city. They must be kept in a vessel suitable for removal, and are collected twice a week. Ashes and garbage can be kept in the same vessel; they are disposed of by being dumped and used as filling. The cost in 1880 was $275. No injury to health has been known to result from this system.

Dead animals.—The nuisance committee of the city, through the chief of police, orders the owner to remove the carcass of any dead animal, and if he refuses has it removed at the owner's expense. No expense is incurred by the city.

Liquid household wastes are generally run into sewers where these extend, none into street-gutters. Very few cesspools are in use. No contamination is known to have resulted.

Human excreta.—About half the houses have water-closets, only very few of which empty into cesspools. There are no regulations regarding the construction of privy-vaults, and the only requirement in regard to emptying them is that it shall be done at night. Night-soil is removed beyond the city limits.

Manufacturing wastes are run directly or indirectly into the Connecticut river.

POLICE.

The police force is appointed and governed by the common council. The chief executive officer is the chief of police, whose salary is $800. Besides the chief the force consists of 3 patrolmen. The uniform is of dark-blue cloth, each man providing his own. They are equipped with a billy and revolver, and are on duty 8 hours, patrolling from one-quarter to one-half a mile each. During 1880, 313 arrests were made, the principal causes being drunkenness, assault, breach of the peace, and theft; $1,187 75, lost or stolen, was restored to the owners by the police. The force must co-operate with the fire department. Special policemen are appointed by the common council on recommendation by the chief of police. The total cost of the force in 1880 was $2,576 92.

FIRE DEPARTMENT.

The fire department is under the supervision of a committee on fire, consisting of 1 alderman and 2 councilmen. The board of engineers consist of 1 chief and 2 assistant engineers. In 1880 the manual force of the department numbered 68 men. The apparatus consists of 3 hand hose-carriages (four-wheel), 3 two-wheel service jumpers, 1 small service jumper, 1 hook-and-ladder truck, and 2 hand-engines apparently not used. The department owns 6,500 feet of hose—1,200 feet of cotton hose, 1,000 feet of linen hose, 3,100 of rubber and leather hose, and 1,200 feet of worthless hose. The department attended 21 alarms of fire, the loss at which was $1,665, on which an insurance of $1,035 was paid, leaving a net loss of $630. The alarm telegraph has 3 miles of wire and 6 boxes; 85 hydrants furnish water for fire purposes. The total cost of the department was $1,580 79.

COMMERCE AND NAVIGATION.

[From the reports of the Bureau of Statistics for the fiscal years ending June 30.]

Customs district of Middletown, Connecticut.	1879.	1880.
Total value of imports	$135,791	$80,465
Total value of exports:		
Domestic	None.	None.
Foreign	None.	None.
Number of immigrants	None.	None.

Customs district of Middletown, Connecticut.	1879.		1880.	
	Number.	Tons.	Number.	Tons.
Vessels in foreign trade:				
Entered	2	577	1	336
Cleared	None.	None.	1	142
Vessels in coast trade and fisheries:				
Entered	353	413,735	362	415,359
Cleared	11	2,017	None.	None.
Vessels registered, enrolled, and licensed in district	121	15,594	106	14,065
Vessels built during the year	a 1	269	2	150

a Barge.

NEW BRITAIN,

HARTFORD COUNTY, CONNECTICUT.

POPULATION

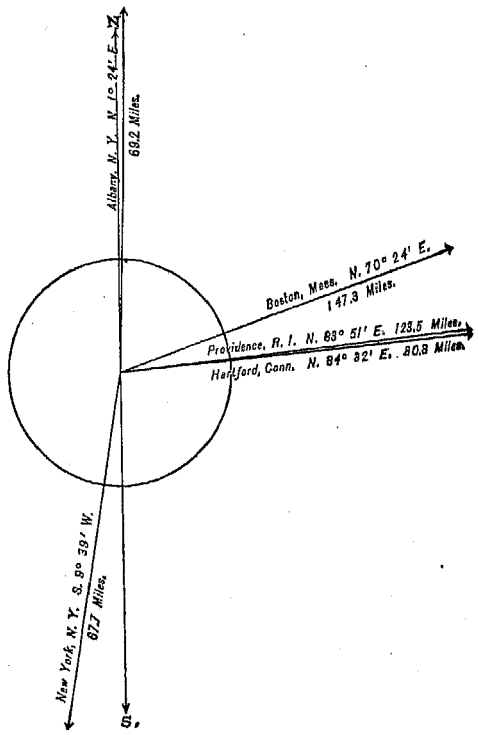
IN THE

AGGREGATE,

1850-1880.

	Inhab.
1790	------
1800	------
1810	------
1820	------
1830	------
1840	------
1850	3,029
1860	5,212
1870	9,480
1880	*11,800

City of New Britain set off from the town of New Britain, 1871.



POPULATION

BY

SEX, NATIVITY, AND RACE,

AT

CENSUS OF 1880.

Male	5,787
Female	6,013
Native	8,103
Foreign-born	3,697
White	11,732
Colored	*68

*Including 6 Chinese.

Latitude: 41° 40′ North; Longitude: 73° 47′ (west from Greenwich).

FINANCIAL CONDITION:

Total Valuation: $4,669,355; per capita: $334 00. Net Indebtedness: $494,843; per capita: $35 40. Tax per $100: $1 90.

HISTORICAL SKETCH.

New Britain was originally a part of Berlin and Farmington, and became a separate town in 1850, when the part taken from Berlin was incorporated. In 1859 a portion of Farmington was annexed. The people are largely engaged in manufacturing, chiefly hardware. It has had a steady and rapid growth, and though there have been disastrous fires at long intervals, and seasons of business depression, its prosperity has not been seriously affected. There are about twenty different manufacturing establishments, mostly joint-stock companies, which employ a large

number of operatives. Although the place was settled mainly by persons of American parentage, the manufactures have called to the city a large Irish population and many Germans and Swedes. In 1871 part of the town was incorporated as the city of New Britain, and the relative importance of the town and city is shown by their population; in 1880 the city had 11,800 inhabitants; the town without the city, 2,179.

NEW BRITAIN IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of New Britain:

LOCATION.

New Britain is situated in latitude 41° 40′ north, longitude 73° 47′ west from Greenwich, about 9 miles southwest of Hartford, Connecticut. It is not on any navigable water.

RAILROAD COMMUNICATIONS.

The New York and New England railroad passes through the city; its eastern terminus is Boston, its western terminus is New York. A branch road extends from the city 2½ miles to connect with the Consolidated road (Hartford and New York) to Boston.

TRIBUTARY COUNTRY.

The country immediately surrounding the city is chiefly agricultural, although in most of the towns there is some manufacturing, principally of hardware. Hartford is but 9 miles distant, and is the real center of adjacent rural trade.

TOPOGRAPHY.

The soil is fertile, resting upon underlying red sandstone. The main part of the city is level, but is partially surrounded by hills. The country is open, and has no lakes or ponds of any size within 3 miles of the city.

CLIMATE.

The highest recorded summer temperature is stated to be about 105°, though in average years the temperature rarely exceeds 90°. The lowest winter temperature is said to be about —17°, while there are in average years few days when the temperature falls below zero.

STREETS.

New Britain has about 40 miles of streets, of which one-half mile is paved with broken stone, the rest being all of dirt. The cost per square yard of the broken-stone paving is from 55 to 68 cents; of the dirt roads, about 40 cents. The sidewalks are nearly all of North River flagstone, supported by curbs of the same (where there are any curbs). Where curbing exists the gutters are uniformly of flagstone, about 12 to 18 inches wide, laid horizontally. Trees have been largely planted by the abutters. The work on the streets is done by day labor, at an average annual cost of $7,000. A steam crusher is used, but no rollers. There are no horse-railroads or omnibus lines.

WATER-WORKS.

The water-works are owned by the city. The supply is obtained from two reservoirs, one of them covering 175 acres and 200 feet above the city. The total capacity is 2,000,000 gallons per diem. The system is a gravity system distributing through 30 miles of pipes varying in diameter from 12 to 4 inches. The pressure from the hydrants, of which 152 are used, is 70 pounds to the square inch. The average daily consumption is 1,500,000 gallons. During the year ending April 1, 1880, the receipts from water-rates were $16,419 59, while the total cost, including $11,970 as interest on the water-bonds, was $17,876 39.

GAS.

The city is supplied with gas by the New Britain Gas Light Company. No further information was furnished.

PUBLIC BUILDINGS.

The total value of the public buildings owned by the city of New Britain is about $15,000, which includes a station-house, and fire-engine and station-house, and other houses of the fire department. There is no city hall. The school-houses are owned by the town, and are valued at about $125,000.

PUBLIC PARKS AND PLEASURE-GROUNDS.

The Park contains about 74 acres, and is simply an open field partially improved. *Central Park* has about 2 acres and is unimportant. The total cost has not exceeded $80,000, of which $75,900 is for "the Park." They are controlled by the park commissioners, three in number, appointed by the town.

PLACES OF AMUSEMENT.

The city has two large halls, an opera-house seating 950, and one hall seating 800. Theaters pay a license of $25 annually. There are three small society halls used for dances. There are 2 beer-gardens—Trenot's park and Hettrick's park—used only for picnics or gatherings. No concerts are given in these.

DRAINAGE.

The drainage of New Britain was formerly delivered into a small sluggish stream, which took the outflow of manufacturing establishments and of such houses as were so located as to reach it. This stream was covered only where it crosses the streets, and it became very foul.

Prior to 1876 a definite plan of improvement was adopted, and all work since done has been in conformity therewith. All parts of the former system, in all about 1,000 feet, were too shallow to be of practical use in connection with this system. Most of it had been laid merely for relief from flood-waters. These old drains were constructed very largely of cement pipe, the use of which is not permitted under the new plan.

One feature of the improved system is a large sewer carrying the waters of the stream above described and the outflow of all local sewers.

The discharge of steam into the sewers is prohibited. The main is open to the air at both ends. "The upper end causes no inconvenience, and the outlet is not a serious nuisance, owing to the large extent of the dilution of sewage by the fresh water."

The main outfall discharges into a small stream which flows in a northeasterly direction toward Hartford, into the Connecticut river.

The lateral sewers are of vitrified pipe and are self-cleansing.

The cost of the sewers, paid originally by the city, is assessed on abutting property to the extent of the benefit, not exceeding $1 75 per front foot. The method of assessment is curious, being a combination of the front-foot assessment and area, as follows:

Seventy-five cents per linear foot of front.

Six-tenths of 1 cent per square foot for land within 100 feet of the street.

Four-tenths of 1 cent per square foot for land between 100 and 200 feet from the street.

Total for lots 200 feet deep, $1 75, the same being the maximum fixed by the city charter.

On corner lots 100 feet is exempted.

The next 100 feet, if assessed on other street, 75 cents per front foot, and two-tenths of 1 cent per square foot for land within 100 feet of the street.

The answer as to the average cost of inlet-basins is as follows: $120 for catch-basins, $50 for receiving-basins. The former connect with sewer direct, the latter with catch-basins.

The average cost of each manhole of average depth is $40.

CEMETERIES.

There are two public cemeteries in the city, and one private ground beyond the city limit. The *Town Cemetery*, established in 1756, contains about 30 acres, and since 1772 there have been 3,689 burials in it. *Catholic Cemetery*, established in 1850, contains about 20 acres. The total number of interments in this cemetery is 1,914. The Town cemetery is under the control of a standing committe of 8 appointed by the town. Catholic cemetery is under the control of the Roman Catholic church. Lots in the Town cemetery are sold at about $10 each. No limit of time after death is set for the burial. Graves must be 5 feet deep for adults and 4 feet deep for children. A certificate of death, signed by the attending physician, must be obtained before a permit to bury will be granted.

MARKETS.

There are no public or corporation markets in New Britain.

SANITARY AUTHORITY—BOARD OF HEALTH.

The common council of the city constitutes the board of health, but it appoints annually a health committee of 5 members, who may or may not be of their number, which has the practical charge of the public health. The ordinary expense is very small, simply for stationery. The authority of the board is without statutory limit. The health committee consists of a chairman, and one member from each of the wards; 2 of the members are physicians.

They make no regular inspections. Nuisances are inspected as reported, and if found to exist are ordered abated. If this order is disregarded the abatement is made and the expense is charged upon the offending estate, the owner of which is also liable to a fine. The board can regulate defective house-drainage, privy-vaults, cesspools, sources of drinking-water, sewerage, street-cleaning, etc. The board can order garbage removed at the householder's expense, or make the removal itself at the public expense. A physician's certificate of death, stating age, sex, condition, cause of death, etc., of the deceased is required before a permit of interment will be granted.

INFECTIOUS DISEASES.

Neither small-pox nor scarlet-fever patients are quarantined or isolated in any way. The board has never been called on to act in the case of the breaking out of contagious diseases in the schools. There is no public pest-house. Vaccination is not compulsory and is not done at public expense. The registrar keeps a record of births and deaths.

REPORTS.

The health committee reports annually to the common council, and these reports are published.

MUNICIPAL CLEANSING.

Street-cleaning is done by the city with its own force and wholly by hand labor. It is done as often as required on the paved street, about 7 or 8 times a year. No separate account of the expense is kept. The sweepings are used as manure or dumped beyond the city limits.

Removal of garbage and ashes.—This is done both by the city with its own force and by the householders. No laws regulate the keeping or removal of garbage and ashes, which may be kept in the same vessel. All garbage and ashes collected by the city are deposited together on a dumping-ground beyond the city limits. The expense to the city in the year ending April 1, 1880, was about $130.

Dead animals must be removed and buried by the owner. If he refuses or can not be found, the carcass is buried by the police at the city's expense. The one so refusing is liable to a fine not exceeding $20. Only a few animals are removed annually.

Liquid household wastes.—Chamber-slops and kitchen and laundry wastes are disposed of alike. More than half run into public sewers, but little into the street-gutters. About three-eighths of the houses use cesspools, which are porous and generally without overflows, and which receive the wastes of water-closets where there are no sewers. Cases of contamination of drinking-water by the leakage or overflow of cesspools have occurred. The cesspools must be kept clean, the contents removed in winter at night, and in water-tight carts.

Human excreta.—Less than one-quarter of the houses are provided with water-closets. All empty into the sewers where these are available. The rest of the houses depend on privy-vaults, very few of which are even nominally water-tight. They must be at least 6 feet square and must not be filled to more than within 3 feet of the top. They must be emptied between November and April, the contents being removed in water-tight carts and at night. The night-soil is used as manure; no law prohibits its use on land within the gathering-ground of the water-supply, but such use is improbable.

Manufacturing wastes.—Liquid wastes run into the sewers. The solid wastes are used either as filling or for manure.

POLICE.

The police force of New Britain is appointed and governed by the common council. The chief executive officer is a chief of police, whose salary is $900 a year, and whose duty is the general management of his department. The rest of the force consists of 5 regular policemen, salary $800 each, and of 11 supernumerary policemen, paid, when on duty, at the rate of $800 a year. The uniform is of blue cloth with gilt buttons, and each man provides his own. The men are armed with billy and pistol, and are on duty from 7 p. m. to 4 a. m. During the year ending April 1, 1880, the number of arrests was 371, of which 115 were for drunkenness, 113 for assault and breach of the peace, and 46 for larceny. No station-house lodgers are received. The police must co-operate with the other departments of the city whenever necessary. Twenty supernumerary police officers may be appointed by the city common council, and receive the same pay as the regular force for time actually spent on duty. The total expense of the police was $5,075 25.

FIRE DEPARTMENT.

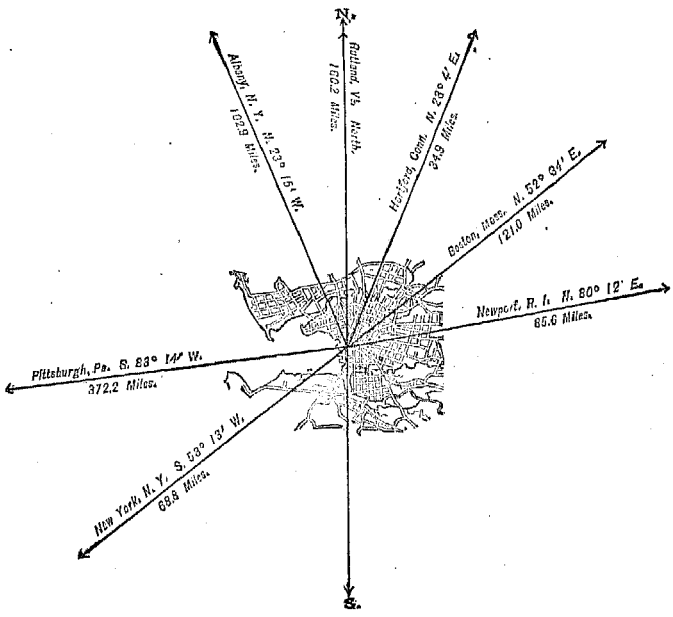
The fire department of the city is governed by 1 chief and 1 assistant engineer, and consists of 10 companies with 121 men. The apparatus consists of 1 steam and 1 hand fire-engine; 1 hook-and-ladder truck, 1 two-horse and 5 four-wheel hand hose-carriages, and 1 jumper. The department owns 4,650 feet of hose, of which 50 feet is of rubber, 2,100 feet cotton, 1,000 feet linen, and 1,500 feet leather in poor condition. There is a fire-police company of 12 men. A Gamewell fire-alarm telegraph with 14 street-boxes is in use. The department hires 4 horses. The force was changed from a volunteer to a paid system in 1873. During the year ending April 1, 1880, there were 13 fires, the total loss of which was about $9,500. The total cost of the department for that year was $5,057 32.

NEW HAVEN,

NEW HAVEN COUNTY, CONNECTICUT.

POPULATION IN THE AGGREGATE, 1800-1880.

	Inhab.
1790	.....
1800	4,049
1810	5,772
1820	7,147
1830	10,180
1840	12,923
1850	20,345
1860	39,267
1870	50,840
1880	62,882



POPULATION BY SEX, NATIVITY, AND RACE, AT CENSUS OF 1880.

Male	30,462
Female	32,420
Native	47,214
Foreign-born	15,668
White	60,648
Colored	* 2,234

*Including 31 Chinese, 4 Japanese, and 7 Indians.

Latitude: 41° 18′ North; Longitude: 72° 57′ (west from Greenwich); **Altitude: 0 to 359 feet.**

FINANCIAL CONDITION:

Total Valuation: $46,968,387; per capita: $747 00. Net Indebtedness: $1,584,619; per capita: $25 20. Tax per $100: $1 65.

HISTORICAL SKETCH.

New Haven, to-day the largest city in Connecticut, was settled in 1638 by a colony sent out from London under the leadership of Theophilus Eaton and the Rev. John Davenport, and soon became the leading settlement of southern Connecticut. Other settlements at Quinnipiack, Milford, Stamford, Branford, Connecticut, and Southhold, on Long Island, united their fortunes with the large colony, and remained with it under a charter drawn up among themselves, until in 1665 the colonies of New Haven and Connecticut were united under a charter granted in 1662 by Charles II. This was the charter which Andros tried to take away and was prevented by Wadsworth, who hid it in the Charter Oak, at Hartford.

The situation of New Haven on a harbor, and about 4 miles from Long Island sound, naturally led the inhabitants to devote themselves to commerce, and a considerable trade grew up with foreign countries, especially with the West Indies. In 1701 the general court of Connecticut, which had previously held its sessions in Hartford, determined to hold the October sessions in New Haven, a custom that was kept up until 1818, when the new state constitution was adopted. Under this the legislature met in New Haven every other year, meeting in Hartford on the even years, in New Haven on the odd; until finally, in 1875, Hartford was again made the sole capital.

Nothing has made New Haven more famous than the fact that it is the seat of Yale college. The settlers of the colony early determined to have a college, and in 1700 one was founded at Millingworth. In 1707 this was removed to Saybrook, and in 1716 to New Haven, where it has since remained, and grown to be the rival of Harvard as the leading college in the United States. The name was given in honor of Elihu Yale, of London, one of the governors of the East India Company, and a native of New Haven, who was one of the earliest benefactors of the college.

The town seems never to have met with serious reverses, and to have made steady progress from its earliest settlement. In 1784 New Haven was incorporated as a city, although the city did not then, as at present, include all the territory of the old township. The only serious epidemic from which the city has ever suffered occurred in 1794, when the yellow fever was frightfully prevalent in the city. Although the commerce of New Haven was nearly ruined by the war of 1812, and the years from 1814 to 1816 were a time of general depression in business, the material welfare of the city was not greatly injured. The building of a railroad connecting it with New York helped greatly in advancing the city's prosperity. The beautiful elms, which have made the "City of Elms" a synonym for New Haven, were mostly planted about the beginning of this century. The houses stand detached and surrounded by fine grounds, making the city very beautiful, and adding considerably to its healthfulness. In 1848 gas was introduced, and in 1862 a public supply of water was obtained from the Mill river. The supply has since been increased by taking water from Wintergreen lake. The manufactures of the city are numerous and important, the principal ones being of machinery, hardware, fire-arms, carriages, organs, pianos, jewelry, india-rubber goods, etc. The city has also a large trade by sea with our own and foreign countries. Its valuation in 1873 was more than $40,000,000, while the population has more than trebled in the thirty years since 1850. Although the town and city of New Haven are conterminous, two distinct governments are maintained.

NEW HAVEN IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of New Haven:

LOCATION.

New Haven is situated in latitude 41° 18′ north, longitude 72° 57′ west from Greenwich, on a harbor extending inland 4 miles from Long Island sound. The mean altitude above the sea-level is 30 feet, the lowest point being at the sea-level, the highest, East Rock, 359 feet above. The depth of the water at low tide in the middle of the channel is 19 feet, while the tide rises on an average 6¼ feet. The average width of the channel is 300 feet; the bottom of the harbor is a soft mud, and it furnishes anchorage ground ample for the present and prospective commerce of the city.

RAILROAD COMMUNICATIONS.

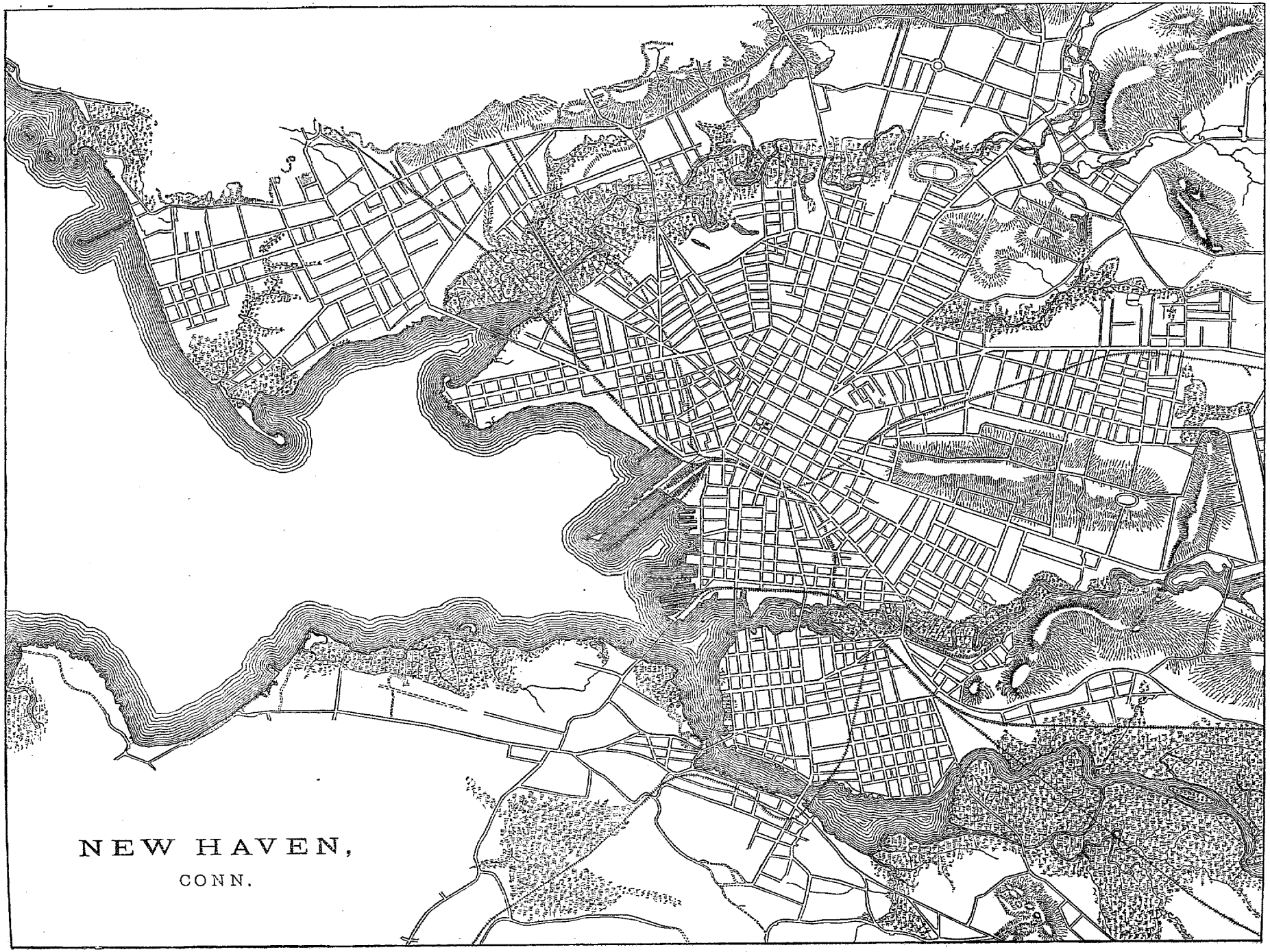
The following railroads connect the city with the important points of New England and the East: The New York and New Haven railroad, termini New York and New Haven; the New Haven, Hartford, and Springfield railroad, termini New Haven and Springfield; the Shore Line railroad, furnishing communication with New London, and thence to Providence, Rhode Island, and to Boston; the New Haven and Northampton railroad, termini New Haven and Northampton; the New Haven and Derby railroad, furnishing communication with Birmingham and the Naugatuck valley.

TRIBUTARY COUNTRY.

The country immediately about New Haven is dotted with small manufacturing villages, and is also slightly agricultural. New Haven is the trading center for the district.

TOPOGRAPHY.

The city is situated on a sandy plain surrounded on the east, north, and west by hills. The underlying rock is of unusual variety, comprising granite, serpentine and other metamorphic rocks, red sandstone, and Triassic conglomerate, with trap-dikes. To the east and west the hills rise to a height of 300 to 500 feet. The surface of the country is very diversified with sandy sea-shore, sandy plain, salt-water tide-marshes, fresh-water swamps, rolling wooded hills, and rocky hills with steep precipices. The soil is fairly fertile in many places. Three small rivers drain the region.


NEW HAVEN,
CONN.

CLIMATE.

The highest recorded summer temperature is 102°, on June 26, 1867, while the highest average summer temperature for twenty years is 94°. The lowest recorded winter temperature is —24°, on January 25, 1835, the lowest average winter temperature for twenty years being —6°. The prevailing wind from October to March is from the northwest; for April from the west; while from May to September the winds vary with the time of day.

STREETS.

The total length of the city streets is 130 miles, of which one-sixth mile is paved with cobble-stones, 2½ miles with stone blocks, one-third mile with asphalt, 10 miles with broken stone, one-quarter mile with wood, and about 5 miles are hardened with oyster-shells, etc. The cost of the various pavings is, for cobble-stones, 54 cents per square yard; stone blocks, $1 25 to $1 85, according to the kind and quality; asphalt, $1 75; broken stone, average, $1 10; wood, $4; shells, etc., 25 cents. The care with which they are kept clean is in the following order: stone blocks, cobble-stones, asphalt, wood, shells, and broken stone; while the quality and permanent economy seems to be as follows: stone blocks, asphalt, broken stone, wood, cobble-stones, and shells. The sidewalks are of North River blue flagstone, brick, and concrete. The gutters are of the blue flagstone, with Belgian blocks or cobble-stones beside it for a width of 3 or 4 feet. Trees are planted between the curbstone and the flagstone walks. The construction of the streets is done by contract, the repairs by day labor. Both a steam crusher and roller are used, and give excellent results. The average cost of general repairs on the streets in the years 1871–'79, both inclusive, has been $10,390 48; for paving, $37,004 11; for opening and widening, $37,007 58, and for walks and curbs, $2,157 68. There are about 15 miles of horse-railroads, using about 50 cars. The fares are 5 and 6 cents. There are no city omnibus lines, though there are several running to adjacent towns.

WATER-WORKS.

The city is supplied with water by the New Haven Water Company, a private corporation. Most of the supply is derived from lake Whitney, an artificial reservoir of about 500,000,000 gallons capacity, formed by a dam across Mill river, a small stream draining an area of 56 square miles, and having an estimated minimum flow of 12,000,000 gallons daily. Water from this lake is pumped by water-power to a distributing reservoir on Sachem hill, 129 feet above tide-water, having a capacity of 10,000,000 gallons, whence it is distributed to the city by gravity. The water-pumping machinery is supplemented with steam-pumps having a capacity of 6,000,000 gallons daily. In addition, there are three storage reservoirs, having a combined capacity of 136,000,000, from which water is brought to the city and distributed by gravity. The average pressure in the mains is 25 pounds to the square inch, and the daily consumption is 5,000,000 gallons. The city pays $16,000 annually for water.

GAS.

Gas is supplied by a private corporation, the New Haven Gas Light Company. No further information was furnished.

PUBLIC BUILDINGS.

The public buildings owned by the city are valued at about $250,000, which apparently includes the city hall, valued at $100,000, of which the city owns one-half; a police building, valued at $75,000; a portion of the old state-house, owned by the city; and the engine-houses, valued at $91,120; but not including school buildings, of the value of which no estimate is given.

PUBLIC PARKS AND PLEASURE-GROUNDS.

The total area of the parks of New Haven is about 31 acres. Broadway park is about 1 acre; "the Green" has 16 acres; Clinton park, 3½ acres; Fountain park, one-third acre; Jocelyn park, 2½ acres; Munson park, one-half acre; Spireworth park, three-quarters acre; Temple park, one-tenth acre; Wooster park, 4½ acres; York square is very small. There are, also, Hamilton park, 47½ acres, and Yale College parks, 9 acres. The lands for a new public park of between 200 and 300 acres are now being acquired. It will include East rock, 359 feet high; Snake rock, 200 feet; Indian head, 310 feet, and Whiting peak, 300 feet; Mill river will run through a portion, and the park will be known as "East Rock park". The parks are controlled by the board of road commissioners, through the superintendent of parks. No record of the cost of the parks is given.

PLACES OF AMUSEMENT.

New Haven has 3 theaters: Carll opera-house, seating 2,500; Grand opera-house, seating 1,852, and Coe's opera-house, seating 990. There is no resident theatrical company, the theaters being used by traveling companies during the season. Theatres pay a license of $1 for each performance, or $5 per month if continuously occupied by the same party. The following halls are used for concerts and lectures: The Atheneum, seating 800, and

Loomis hall, seating 500, are handsome and convenient halls, both having stages and some scenery. Germania hall, seating about 600, is a handsome hall, used mainly by German societies. Turn hall seats about 350, and Central hall about the same number.

A city ordinance forbids the sale of beer or intoxicating liquors in any place where concerts or acting are carried on. There are two "variety theaters", the Gaiety, seating about 250, and Tivoli, about 150. Two others existed during 1879, but retired from business on the enforcement of the ordinance mentioned above.

DRAINAGE.

The queries of the schedule of interrogatories concerning the sewerage of New Haven have not been answered. The following information is taken from the annual reports of the street department: The sewerage of the city is effected in substantial accordance with the plans of E. S. Chesbrough, esq., of Chicago. This plan involved the retention in use, after repair and alteration, of about 9 miles of old sewers, most of which have been put in satisfactory condition, and a large portion of the new work provided for has been carried out.

The total length of sewers in the city in 1880 was 35.181 miles.

The main outlet is through a 74-inch brick and stone sewer, which has been carried 500 feet out into the harbor, discharging near the level of low water.

The whole system is arranged to discharge along with the foul sewage the water of light rains, overflows being provided for the escape of superabundant storm-water. The plan is a comprehensive one, and in its execution great care has been given to the proper carrying out of the work in accordance with carefully-drawn specifications.

The most interesting feature of this work relates to the methods adopted for cleansing and the careful attention given to house-connections. The following on these subjects is quoted from the report of Charles E. Fowler, esq., city engineer:

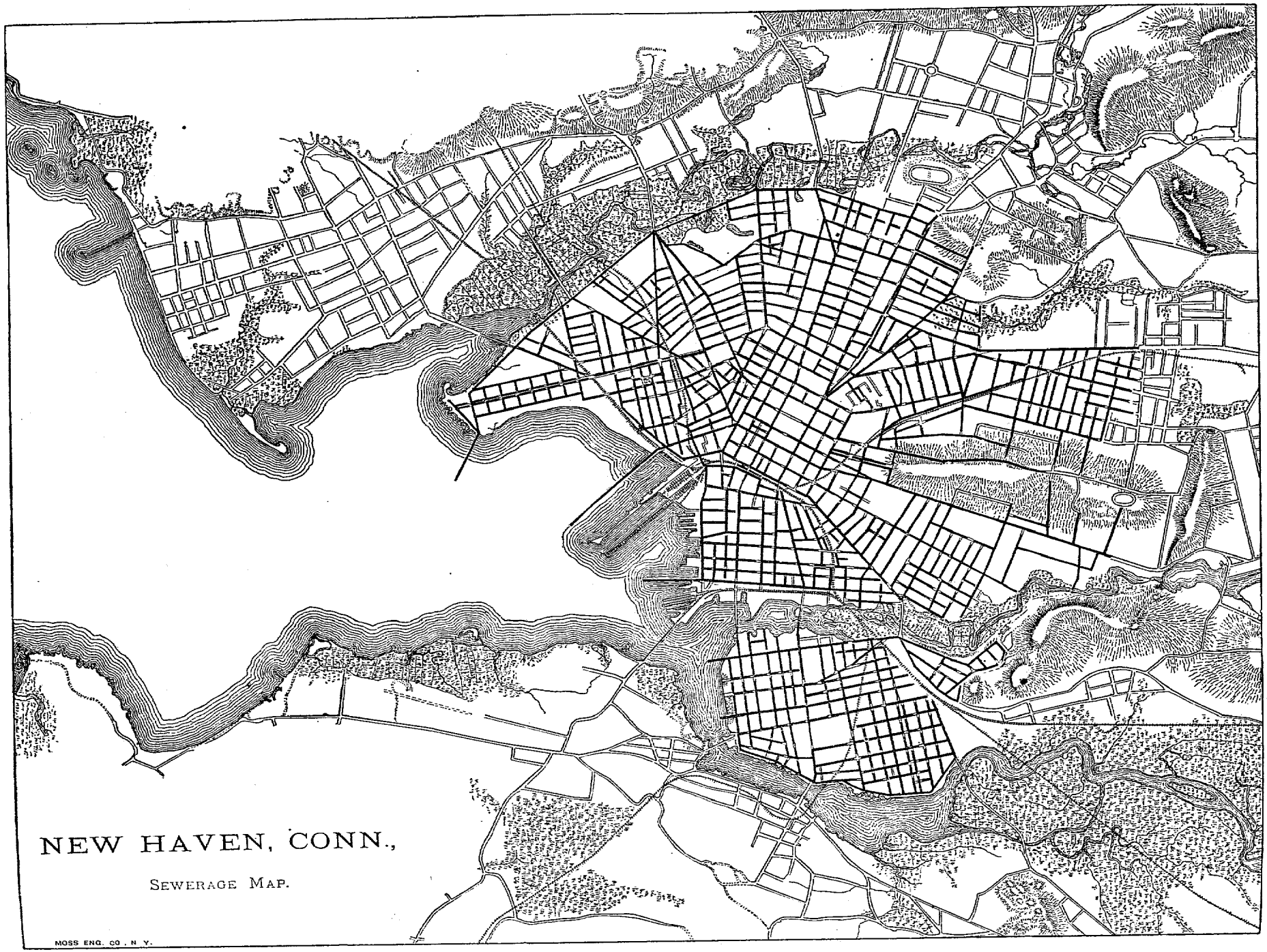
Previous to the year 1871 but very little attention had been given to the cleaning of sewers, and it was found in this examination that some of them were badly filled with sand and filth. A force was organized and set at work cleaning and flushing all the sewers that needed attention, and continued until the entire system was placed in fair condition. At first the arrangements for cleaning were of the simplest kind. Men entered the larger sewers and removed the accumulations of sand, etc., by using small buckets, which were filled and carried to the nearest manhole, and there raised to the surface of the street. This was a slow and tedious process and a very expensive one. Accumulations in the pipe sewers were removed, as far as possible, by flushing with a hose from a fire hydrant. The first improvement was in the use of a sewer-cleaning truck, so constructed that it would run in any sewer that could be entered by men for cleaning. This truck, the invention of assistant city engineer Albert B. Hill, assistant engineer William S. McHarg, and sewer inspector Bernard Carlin, consists of a light iron frame running on adjustable wheels and carrying two iron buckets for the removal of material, and with its use two men are able to do as much work in one day as they could in from five to eight days under the old plan. It is with this machine that brick sewers of 2 feet diameter and upward are cleaned at the present time.

For flushing the pipe sewers a large monitor water-cart was procured, the tank holding 700 gallons, and provided with a valve-opening and canvas hose 16 inches in diameter. The cart, filled with water from a neighboring hydrant, was driven over a manhole and through the canvas hose the water dropped into the sewer, the time occupied in emptying the tank being from six to eight seconds. This plan was much more effective than the flushing by a hose, but a serious objection was that the sudden dropping of a large quantity of water into the sewer and manholes caused injury to them. In cases where the sediment or filling in the sewers had become firmly packed it took considerable time to get it all washed out. As an experiment I had round wooden balls made, 2 inches less in diameter than the sewer, and these were forced through the sewer with water from the tank. The results obtained were very satisfactory, and the time and expense were largely reduced. The wooden ball would be driven along the sewer by the force of the water until an obstruction was met, when the ball immediately became a dam, and the water escaping under and around it rapidly loosened up the material and washed it along the sewer followed by the ball. When the ball had passed through a sewer it was then known that the sewer was substantially clean, and a few loads of water after that would remove any sediment that might be left.

To protect the sewers and manholes from injury a galvanized iron pipe was provided, the top being enlarged in the form of a funnel to receive the end of the canvas hose, and the bottom curved so as to be placed into the end of the sewer at the bottom of the manhole. This pipe was made in two sections, the lower section being 11 inches in diameter, and the upper one, below the funnel, 10 inches, so as to slide into the lower section and accommodate itself to manholes of different depths, the top of the funnel being on a level with the top of the manhole. In using the round wooden balls a few cases occurred where delays were caused by the ball encountering a solid substance, such as a loose brick, and becoming wedged or stuck in the sewer. Then it became necessary to enter the sewer at the next manhole below the obstructed ball, and by the use of extension rods push the ball back to the manhole above. To obviate this difficulty it was deemed advisable to have a stout cord fastened to the ball so that in case an obstruction was met which the ball and water could not remove the ball could be pulled back and the obstruction removed by other means. It was found that with a cord attached the round ball was not the best form, owing to the liability of its rolling over, so a wooden cylinder was substituted, the diameter being 2 inches less than that of the sewer, and its length about 40 per cent. more than the diameter. The ends were turned off so that the block would not catch on projecting joints, and a bolt or rod through the center, with a ring at the back end, furnished a place for attaching the cord. Such is the form of the ball or cylinder in use at the present time, and in appearance is somewhat similar to that of an ordnance shell.

The apparatus for flushing comprises, in addition to the articles described, several sections of hose, reeled and carried on a two-wheeled carriage, a reel for the cord, iron buckets, and a light derrick for removing, at the manholes, the sand and other material washed from the sewers, a set of extension rods, and a plunger for removing substances such as bricks, stones, tree-roots, etc., that are sometimes found in the sewers and can not be forced out with water, and a proper supply of picks, shovels, rope-ladders, bars, lanterns, etc.

The mode of operation at the present time is as follows: The manhole at the upper end of the sewer is opened, the wooden ball placed in the end of the sewer, the galvanized iron pipe placed in position, the cord passed through the pipe and attached to the ball, the water-cart set over the manhole, and the canvas hose dropped into the funnel of the iron pipe, the hose laid from the nearest


NEW HAVEN, CONN.,
SEWERAGE MAP.
MOSS ENG. CO., N. Y.

hydrant to the tank of the water-cart, and the water turned on. When the tank is full, the valve is opened instantly by a powerful lever, and the water passing through the canvas hose and iron pipe into the sewer forces the wooden ball along. The water not being turned off at the hydrant continues running, and in from three to four minutes the tank is filled and the water dropped into the sewer as before. The large quantities of water, following each other in rapid succession, and before the effect of the preceding discharge is fully lost, is a force that is almost irresistible, and the result is the ball is driven rapidly along the sewer, carrying all deposit before it. When the ball has reached a lower manhole, generally the second or third one below the one where the water is admitted, the flushing apparatus is moved down to that manhole, and the operation is repeated, and so on, to the end of the sewer. A change of ball is made at the manhole where the change in size of the sewer occurs. The deposit washed from the sewer is raised to the surface of the street at the manholes and carted away.

Since the introduction of ball-flushing, the cost of sewer cleaning has been as follows:

1879, average cost per mile of sewer	$70 15
1880, average cost per mile of sewer	69 72
1881, average cost per mile of sewer	57 42

This is for all the sewers, as the expense of keeping the large and small sewers clean has not been kept separate.

The successful operation of our system of flushing and cleaning is due very largely to the care and attention given to the work by Mr. Edward Dillon, superintendent of sewers, and some of the best features of our present plan are the result of his suggestion.

Every connection made with the sewers has been done under the supervision of some one from this department, whose duty it has been to see the first pipe laid, and the connection properly made; also to get the measurement of where the pipe is to be laid to the land or property to be drained. Sewer connections are made as plotted on the sewer maps, and are of great value for future reference. To the present time, the laying of the connection beyond the first pipe has been done without inspection on the part of the city. The number of sewer connections made and inspected during the year was 287, not including repairs and changes.

In connection with the use to be made of house-drains and sewers, Mr. Fowler says:

Sewers and house-drains are designed for the removal of liquid refuse, not the entire garbage of a family. Drains are not intended to carry ashes, broken bottles and crockery, old clothing, shoes, etc., but such things are often found in the sewers. House-drains can not be expected to act satisfactorily unless there is a liberal supply of water for them. When a stoppage occurs in the pipes and sets the water back into the cellars, nine times out of ten it will be found that the trouble is in the house-drains instead of the sewer, and caused by their use for improper purposes.

It is also suggested that—

A more systematic plan for the cleaning of catch-basins, and the filling of them with water, is urgently needed, and the subject should receive early attention from the board.

The only information given concerning the cost of the work is contained in the following table:

Average of the contract price per foot of each of the respective sizes of sewers built during the year 1876.

Size.	Material.	Average contract price per foot.
74 inches	Brick and stone	$6 00
36 inches	do	3 65
24 inches	do	2 25
24 inches	Brick	3 23
18 inches	Cement pipe	1 55
15 inches	do	1 16
15 inches	Vitrified pipe	2 31
12 inches	Cement pipe	0 93
12 inches	Vitrified pipe	1 95

CEMETERIES.

No information in regard to the cemeteries of New Haven could be obtained from the city authorities, although repeated attempts were made.

MARKETS.

There are no public or corporation markets in the city.

SANITARY AUTHORITY—BOARD OF HEALTH.

The chief sanitary authority of New Haven is vested in a board of health, of which the mayor is *ex-officio* president, consisting of 6 members, one-half of whom must by law be physicians, appointed by the mayor and confirmed by the board of aldermen. The term of office is 3 years, two members being appointed each year. The annual expenses of the board are about $3,500. The powers of the board both in the absence of and during an epidemic are full and arbitrary under the law, but no extraordinary expense can be incurred without the consent of the board of aldermen. The chief executive officer of the board is the clerk, who receives $600 per annum, and who has full power to act, issue all orders, keep the accounts, etc. One health officer—a physician—is employed, salary $600, and 2 sanitary inspectors; none have police power. The board meets once a month from November to May, and weekly during the rest of the year.

NUISANCES.

Inspections are made regularly in all parts of the city. If a nuisance is found or reported it is examined, then reported to the clerk, who issues an order for its abatement within a limited time, notifying the owner that unless the order is complied with the abatement will be made by the board at his expense. Defective house-drainage, privy-vaults, cesspools, and sources of drinking-water are treated in the same way as nuisances. In the case of defective sewerage or street-cleaning, if due to the carelessness of the road department, the attention of that department is called to it; if due to private parties a prosecution is instituted unless proper repairs are made.

GARBAGE.

Garbage is removed by contractors; it must be kept in suitable vessels and separate from ashes.

BURIAL OF THE DEAD.

No interment is allowed except on a permit from the registrar, who issues it upon the receipt of a certificate of death from the attending physician or some member of the board of health.

INFECTIOUS DISEASES.

Small-pox patients are quarantined at home, or removed to a public pest-house on the outskirts of the city if the board of health deems it necessary. Scarlet-fever patients are quarantined at home as closely as possible. In case of the breaking out of contagious diseases in the public schools the board can take such measures as it deems proper. Vaccination is compulsory only when ordered by the board of health, and is then done at public expense.

REPORTS.

The board reports annually to the common council *pro formâ* monthly. These reports are published annually. The registration of diseases, deaths, and births is compulsory under the state laws, and is done by the registrar.

MUNICIPAL CLEANSING.

Street-cleaning is done by the city with its own force. Sweeping-machines are not used, but hoeing-machines are used on the paved streets. The work is done about once a week on the principal streets, and as often as needed to remove the worst accumulations on the others, but is not very efficiently done. The annual cost to the city is $15,000. The sweepings are used as filling, except the best from the paved streets, which is used as manure.

Removal of garbage and ashes.—The city contracts for the removal of garbage, but in some cases the householders make private arrangements. It must be kept in covered vessels, separated from ashes or house-dirt while awaiting removal; it is used in feeding swine. Ashes are removed by the city at an average annual cost of $3,600, and are used for filling on the streets and lowlands. A careful inspection is made frequently, and nuisances arising from the improper keeping of garbage are thereby made rare.

Dead animals must be removed by the owners beyond the city limits and there buried. Such as are found in the streets are buried by the street department. About 300 horses are removed annually.

Liquid household wastes.—Chamber-slops and kitchen and laundry wastes are generally disposed of alike; where sewers exist the wastes mostly run into them, none into the gutters. Cesspools are largely used and are generally porous, though a late law requires them to be made water-tight when near houses or wells. In some cases they receive the wastes from water-closets. The situation of the city on a sandy plain causes the wastes to percolate to at least a depth of 50 feet, and numerous cases of contamination of wells are known to have occurred. The cesspools can be cleaned only on a permit from the board of health, the contents being removed in water-tight carts beyond the city limits.

Human excreta.—Probably seven-tenths of the houses depend on privy-vaults, the rest on water-closets which nearly all empty into the public sewers, although there are a very few discharging into cesspools. The existing laws require that privy-vaults shall be water-tight if within 100 feet of any well or cellar. A permit from the board of health must be obtained before a vault can be cleaned. The night-soil is taken beyond the city limits, composted, and used as a fertilizer, but none is allowed on the gathering-ground of the public water-supply.

Manufacturing wastes.—The wastes from the slaughter-houses are prepared and used as fertilizers.

POLICE.

The police force of New Haven is appointed by a board of police commissioners, and the members are appointed for life, or during good behavior. It is governed by the chief of police, under the direction of the police

commissioners. The chief of police is the chief executive officer, and has the general charge of the department; his salary is $2,500 a year. The rest of the force consists of 1 captain, salary $4 12½ a day; 1 lieutenant, salary $3 57½ a day, and 81 patrolmen, salary $2 75 each a day while on duty. There are also 10 supernumeraries in the employ of the department. The uniform is of blue, New York regulation cloth, the trousers having a white cord; the hat is of felt with a stiff brim, with wreath and number on the front. The complete uniform costs $98 50, and each man provides his own. The men are equipped with a New York regulation club, leather billy, and revolver, and are on duty at night ten hours, during the day eleven hours, patrolling 130 miles of streets. During 1880 the police made 4,611 arrests, the principal causes being drunkenness, breach of the peace, and larceny; $17,399 71 lost or stolen was recovered by the police and returned to the owners. In 1880 there were 839 station-house lodgers, against 1,595 in 1879. They are supplied with pilot crackers at an annual cost of about $40. The police must co-operate with the fire department at all fires. No special policemen are appointed. The total cost of the department in 1880 was $77,718 06.

FIRE DEPARTMENT.

The fire department of New Haven is under the general charge of a board of fire commissioners of 5 members. The force consists of 1 chief and 3 assistant engineers, one of whom is also fire-marshal; 1 superintendent of fire-alarm, and 112 firemen—a total force of 118. They are divided into a permanent force of 30 and a call force of 88 men. The apparatus consists of 8 steam fire-engines in actual service, two held in reserve; 2 hook-and-ladder trucks and 12 hose-carriages, 2 of which are in reserve. The department owns 15,450 feet of hose, 4,750 feet of which is cotton hose and 10,700 feet leather hose. Twenty-five horses are owned and in use by the department. Alarms are given by a Gamewell fire-alarm telegraph, with 67 alarm-boxes. Water is obtained from 606 hydrants. During 1880 there were 125 fires and alarms. The total value of the property destroyed by fire was $32,760 44, on which an insurance of $27,523 44 was paid, leaving a net loss of $5,240. The total expense of the department (1880) was $55,051 43.

PUBLIC SCHOOLS.

The following statistics of the schools of New Haven have been obtained from the report of the superintendent of schools for the year ending August 31, 1880:

The whole number of buildings used for school purposes was 26, containing 184 rooms. The number of teachers employed was 232, and the total number of children registered in the schools during the year was 11,897, from a school population of 13,470 between the ages of 4 and 16 years. The average number belonging to the schools was 8,356, the average daily attendance being 7,931. The number of schools of each grade was not given. The total expense of the schools for the year was $256,893 62.

COMMERCE AND NAVIGATION.

[From the reports of the Bureau of Statistics for the fiscal years ending June 30.]

Customs district of New Haven, Connecticut.	1879.	1880.
Total value of imports	$673,941	$1,172,642
Total value of exports:		
Domestic	$3,248,754	$1,244,787
Foreign		$15
Number of immigrants	2	9

Customs district of New Haven, Connecticut.	1879.		1880.	
	Number.	Tons.	Number.	Tons.
Vessels in foreign trade:				
Entered	80	16,824	96	23,089
Cleared	34	8,906	37	8,749
Vessels in coast trade and fisheries:				
Entered	830	563,858	952	576,932
Cleared	763	560,974	733	558,913
Vessels registered, enrolled, and licensed in district	194	24,184	227	28,312
Vessels built during the year	9	2,549	35	4,230

MANUFACTURES.

The following is a summary of the statistics of the manufactures of New Haven for 1880, being taken from tables prepared for the Tenth Census by T. Attwater Barnes, special agent:

Mechanical and manufacturing industries.	No. of establishments.	Capital.	Average number of hands employed.			Total amount paid in wages during the year.	Value of materials.	Value of products.
			Males above 16 years.	Females above 15 years.	Children and youths.			
All industries	587	$9,703,737	9,998	4,780	378	$5,761,374	$14,482,163	$24,040,225
Blacksmithing	28	17,300	52	.....	3	28,872	24,950	82,950
Bookbinding and blank-book making	5	67,500	32	16	3	40,399	61,713	134,875
Boots and shoes, including custom work and repairing	10	26,600	70	34	3	51,038	70,277	157,460
Boxes, fancy and paper	3	31,000	47	230	3	64,000	115,687	223,814
Brass castings	6	104,000	168	8	.....	85,800	121,000	275,000
Bread and other bakery products	30	108,250	162	28	14	83,996	343,190	475,892
Brooms and brushes	3	6,500	10	2	.....	4,300	11,000	20,800
Carpentering	47	144,034	287	.....	1	143,257	300,957	494,734
Carriage and wagon materials	17	399,199	234	3	.....	125,286	150,972	360,675
Carriages and wagons	26	910,400	956	11	6	553,892	810,529	1,699,154
Clothing, men's	44	463,966	400	350	.....	291,375	583,698	1,122,080
Clothing, women's	10	2,500	25	15	.....	6,960	42,240	54,960
Coffee and spices, roasted and ground	4	55,000	22	4	2	15,100	127,000	161,000
Confectionery	10	32,650	37	22	8	19,257	97,353	169,450
Corsets	9	500,600	193	2,614	17	448,500	1,300,459	2,109,459
Cutlery and edge tools (see also Hardware; Tools)	3	25,800	40	.....	.....	25,000	6,400	43,600
Drain and sewer pipe	3	47,063	22	.....	.....	8,500	18,000	26,500
Foundery and machine-shop products (see also Steam fittings and heating apparatus).	20	292,750	376	.....	12	203,359	304,091	637,894
Furniture (see also Upholstering)	9	143,600	142	4	2	64,164	95,915	193,102
Hardware (see also Cutlery and edge tools; Tools)	11	978,500	1,351	48	39	945,315	753,716	1,954,260
Marble and stone work	10	34,100	68	.....	.....	27,058	24,925	67,494
Masonry, brick and stone	18	70,400	227	.....	.....	107,466	162,667	305,585
Matches	3	118,000	62	78	.....	42,195	268,219	355,876
Models and patterns	5	3,750	21	.....	.....	13,515	5,010	28,200
Painting and paperhanging	27	32,100	131	.....	3	63,267	69,074	175,775
Paper	3	135,500	39	12	2	15,500	81,560	173,400
Patent medicines and compounds	4	80,800	15	4	.....	7,320	32,650	120,800
Photographing	14	15,000	15	4	2	9,500	15,000	52,000
Plumbing and gasfitting	18	83,500	115	.....	5	58,459	99,100	193,125
Printing and publishing	12	234,000	156	5	3	118,382	58,225	247,000
Saddlery and harness	15	23,700	47	.....	.....	20,883	32,486	73,520
Sash, doors, and blinds	3	226,000	131	.....	.....	63,025	152,167	241,401
Shipbuilding	8	39,350	70	.....	.....	34,431	59,570	102,226
Slaughtering and meat-packing, not including retail butchering	6	222,000	360	.....	5	180,609	3,734,351	4,160,780
Soap and candles	5	19,000	15	1	.....	5,498	51,100	65,095
Springs, steel, car, and carriage	4	173,000	114	.....	.....	65,500	116,360	255,600
Steam fittings and heating apparatus (see also Foundery and machine-shop products).	3	92,500	39	.....	.....	19,374	65,153	109,328
Tinware, copperware, and sheet-iron ware	8	36,075	30	.....	.....	15,161	22,626	45,300
Tobacco, cigars and cigarettes	23	92,550	101	17	6	60,361	90,752	214,561
Tools (see also Cutlery and edge tools; Hardware)	3	238,000	127	.....	2	74,538	81,500	248,035
Upholstering (see also Furniture)	3	6,200	9	4	.....	5,300	6,600	14,300
All other industries (*a*)	24	3,371,000	2,921	1,266	237	1,545,712	3,868,421	6,393,165

a Embracing agricultural implements; ammunition; artificial limbs; awnings and tents; bags, paper; baking and yeast powders; baskets, rattan and willow ware; blacking; boots and shoes, rubber; boxes, cigar; boxes, wooden packing; brick and tile; bridges; buttons; carpets, rag; carriages and sleds, children's; clock cases and materials; clocks; coffins, burial cases, and undertakers' goods; cooperage; drugs and chemicals; dyeing and cleaning; engraving and die-sinking; files; fire-arms; flavoring extracts; food preparations; hand-stamps; hats and caps; iron and steel; iron bolts, nuts, washers, and rivets; iron forgings; iron railing, wrought; iron work, architectural and ornamental; ivory and bone work; jewelry and instrument cases; kaolin and ground earths; lamps and reflectors; leather, curried; lime, lithographing; liquors, distilled; lock- and gun-smithing; lumber, sawed; mattresses and spring beds; millinery and lace goods; mixed textiles; musical instruments, organs and materials; musical instruments, pianos and materials; oleomargarine; paints; photographic apparatus; pumps; rubber and elastic goods; saws; screws; shirts; silk and silk goods; sporting goods; starch; stereotyping and electrotyping; stone- and earthen-ware; toys and games; varnish; vinegar; wheelwrighting; window blinds and shades; wire; wirework; and wood, turned and carved.

From the foregoing table it appears that the average capital of all establishments is $16,531 07; that the average wages of all hands employed is $380 14 per annum; that the average outlay in wages, in materials, and in interest (at 6 per cent.) on capital employed is $35,478 30.

NEW LONDON,

NEW LONDON COUNTY, CONNECTICUT.

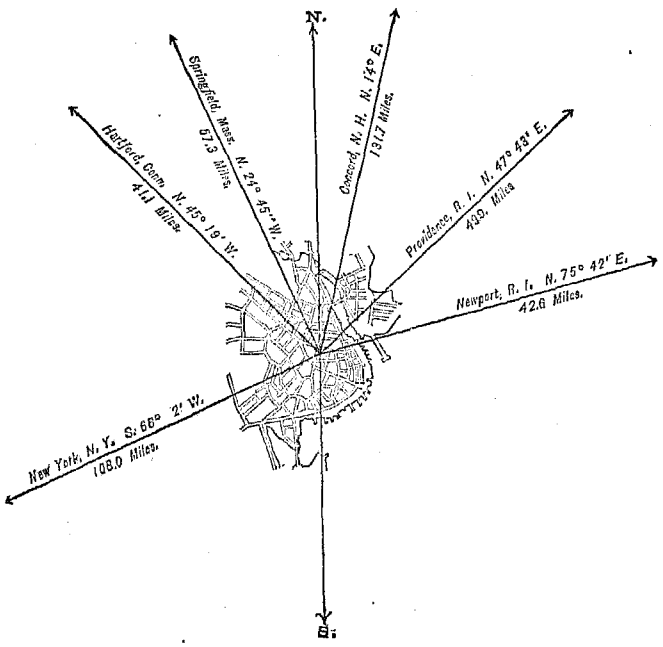
POPULATION

IN THE

AGGREGATE,

1800-1880.

	Inhab.
1790	.....
1800	5,150
1810	3,238
1820	3,330
1830	4,335
1840	5,519
1850	8,991
1860	10,115
1870	9,576
1880	10,537



POPULATION

BY

SEX, NATIVITY, AND RACE,

AT

CENSUS OF 1880.

Male	5,040
Female	5,497
Native	8,715
Foreign-born	1,822
White	10,252
Colored	*285

*Including 2 Chinese.

Latitude: 41° 21′ North; Longitude: 72° 7′ (west from Greenwich); **Altitude: 3.25 to 131.4 feet.**

FINANCIAL CONDITION:

Total Valuation: $6,450,028; per capita: $612 00. Net Indebtedness: $496,611; per capita: $47 13. Tax per $100: $1 60.

HISTORICAL SKETCH.

To John Winthrop the younger belongs the honor of being the founder of New London. In 1640 he obtained from the general court of Massachusetts a grant of Fisher's island as far as it was theirs to give; but as this title was at best doubtful, Winthrop also obtained a grant from Connecticut, and finally in 1668 from New York, thus acquiring complete ownership. Probably he began building and planting on Fisher's island in the spring of 1644, before obtaining in June of that year a grant of a "plantation at or near Pequod for iron-works" from Massachusetts. In the summer of 1645 work began on the new plantation, and in the following year Connecticut, which claimed the jurisdiction, issued a grant for its government to John Winthrop and the Rev. Thomas Peter. No Indian title to the lands remained to be extinguished, for the Pequots had been all but exterminated in 1637, and

the few still remaining gladly welcomed the settlers, on whom they relied to protect them from Uncas, the Mohegan chief, their own lord. In 1648 the people voted to change the name of their plantation from Namseugs to "Pequot Plantation, or London".

Each man was given a house-lot of five acres and a parcel of meadow and upland. Winthrop was to have a first choice, while the others drew lots for what remained as their shares.

In 1649 the general court of Connecticut exempted the settlers from all colonial charges for three years, and recommended that they take the name "Fair Harbor" for their town. In the following year considerable additions were made to their number, mostly of settlers from Massachusetts, and in 1651 the number was still further increased by the coming of twenty families from Gloucester, Massachusetts, under their pastor, Richard Blinman, who was made the first minister of Pequot. In 1657 the town lost its chief citizen, for John Winthrop was made governor of Connecticut, and removed with his family to Hartford. In the following year the general court legalized the name "New London".

The town was the rendezvous of the Connecticut troops during King Philip's war, 1675, and hence felt the hardships of the war more than most of the Connecticut towns.

From the first it was engaged in the coasting-trade, principally with Newfoundland, Barbadoes, and the West Indies. Many vessels were built in the town, and quite a fleet was owned there. In 1690 the news of French privateering caused such alarm that a fort or battery was erected on the point where Ferry wharf stands, and was armed with six cannon brought from Saybrook.

In the year 1700 the people of the eastern part of the town began to ask to be set apart, and in 1705 they were incorporated as the town of Groton. Yet in spite of this loss the male inhabitants of the town numbered 249 in 1708. The alarm over the French privateers did not entirely cease, for in 1712 a beacon was built on Fisher's island, and a guard of 7 men stationed there to give warning of the approach of French vessels. The shipping of the town suffered considerably at the hands of the French.

Although a grammar school had been started in 1701, it was not until 1713 that the first school-house of which any record remains was built.

Norwich did not readily consent that New London should be made the shire town of New London county, and in 1735 began an animated contest with New London for the possession of the court, but was in the end defeated. During the war between England, France, and Spain, which began in 1740, New London was the place of organization of several expeditions against Louisburg, Cape Breton, Canada, and the West Indies. One of the most interesting events in the history of the town during the eighteenth century was the "great awakening", a religious movement spreading among the inhabitants in 1740 and 1741, culminating in the destruction of their books, pictures, finery, and anything likely to distract their attention from spiritual things.

In 1752 New London was involved in a difficulty with the Spanish government, for a large Spanish vessel with a valuable cargo grounded on Bartlett's reef, and was towed to the town, where her cargo was stored. When the captain returned for his property, it had disappeared. Complaint was made to England, the king ordered an investigation, and the matter was finally adjusted quietly. The first newspaper was established in 1758, but it did not last many years.

After the peace of Paris, in 1763, the trade of New London revived and prosperity returned. During the Revolution the town fitted out many privateers, and although the British held Long Island and were masters of the sound, these swift vessels managed to get out and in the harbor. But while thus destroying the commerce of others, the town's people were compelled to see their own ruined, for no merchantman could come or go in safety. No direct attack on New London was made until 1781, when Benedict Arnold, returning from ravaging Virginia, was ordered to make a similar attack on his native state. On September 5 he made a descent on New London and burned a large part of the town. Much as it suffered, its loss was as nothing compared with that of Groton, which was the scene of horrible brutality. The effect of the war on the moral condition of the town was deplorable. "There was no regular minister of any sect remaining in New London; the schools were in great measure broken up; wives were without husbands to provide for them; children without fathers to guide and govern them. Want was in many instances the parent of vice. * * * As a natural result, ignorance, discord, profanity, and rowdyism were lamentably prevalent." A prosperous commerce soon changed things for the better. Ten or twelve years of prosperity followed the war, when commerce was again checked by the struggle for the possession of the West Indies. In 1784 New London was incorporated as a city, Richard Low being the first mayor, and remaining in office nearly twenty-two years. In 1798 the yellow fever was frightfully prevalent, 90 out of 350 cases proving fatal. The original territory of New London has been greatly diminished by the incorporation of Groton in 1705, Mantville in 1800, and Waterford in 1810. Since the beginning of the present century the growth of New London in size and importance has not been rapid. In 1800 the New London Aqueduct Company was chartered and began its work of supplying the city with water from a spring a little north of the city's limits, but after a trial of twenty-five years the enterprise was abandoned.

During the war of 1812 New London was blockaded but was not attacked. The embargo and non-intercourse act ruined the commerce of the city, and it was slow in recovering after the war.

In 1816 the first line of steamers from New York to New London was established. The city entered largely into the whaling business, and for many years was second only to New Bedford, Massachusetts, in the number and value of vessels engaged in the whale-fishery.

In 1847 a telegraph company was formed, and in the same year the New London, Willimantic, and Springfield Railroad Company was incorporated. This road was allowed to change its northern terminus to Palmer, Massachusetts, and was completed to that point in 1850. The New Haven and New London railroad was chartered in 1849, and trains began running over its full length in 1852.

Gas was introduced in 1853. As is the case with many other cities in the state, the city organization did not extinguish the town authority; and although the city and town of New London are co-extensive, two separate governments are maintained. The city is situated on the finest harbor of the United States, as its citizens claim; and as the depth of water is great enough to allow the largest vessels to come to its wharves, the commerce of the city, already considerable, is likely to increase. Manufactures of iron, woolen, and silk are carried on in the city.

NEW LONDON IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of New London:

LOCATION.

New London is situated in latitude 41° 21′ north, longitude 72° 7′ west from Greenwich, on the Thames river, about 3 miles from Long Island sound. The average altitude of the city is about 30 feet above mean low water, the highest point rising 131.4 feet, the lowest 3.25 feet. The Thames at this point has about 30 feet of water in the channel at mean low tide, and from 6 to 20 feet at the wharves; the tide rises 2½ feet. The capacity of the harbor is very great, as it is about 3 miles long and has an average width of half a mile. Steamboat lines run regularly to New York, and to Greenport, Long Island.

RAILROAD COMMUNICATIONS.

The New London Northern railroad, a part of the Central Vermont system of railroads, connects New London with Brattleborough, Vermont, and thence with Montreal and the leading western and Canadian cities. The Stonington and Providence railroad connects it with its termini, Stonington, Connecticut, and Providence, Rhode Island, and the Shore Line division of the New York and New Haven railroad furnishes communication with New Haven, and thence with New York.

TRIBUTARY COUNTRY.

The country surrounding New London is chiefly agricultural, but considerable attention has also been given to manufacturing, for which all the streams are utilized.

TOPOGRAPHY.

The city is situated on a cone rising between the harbor on the east and the coves on the north and south. The soil is generally of gravel, underlaid by granite, which crops out or comes near the surface in many places. The surface rises gradually from the sea-level to an elevation of more than 100 feet. The surrounding country is similar in its soil and formation, and is well wooded.

CLIMATE.

The climate is quite even. The highest recorded summer temperature is 93°, the average highest summer temperature being 89°. The lowest recorded temperature is —14°, while the average lowest temperature in winter is 1.3°. The surrounding waters cause well-defined land and sea breezes annually, as well as diurnally, and tend to make the climate mild and genial, though perhaps too humid, causing fogs and heavy dews rather than rain or snow. During the summer southerly or southwesterly winds prevail, while in winter the prevailing winds are from the north and northeast.

STREETS.

New London has 40 miles of streets, paved as follows: 2,500 square yards with stone blocks, about 2½ miles with broken stone, and about 3½ miles with oyster-shells. The cost per square yard of the stone blocks was $2; of broken stone about 50 cents, and of oyster-shells about 15 cents. The sidewalks are of brick, flagstone, and asphalt, supported by granite curbstones. The gutters are of cobble-stone except in streets paved with stone blocks. The city plants no trees along its streets, but allows abutters to plant them if they wish, and many have done so. The street work is done by day labor, costing, in 1880, $8,700. There are no horse-railroads or omnibus lines in the city.


NEW LONDON, CONN.
SHAW'S COVE
WINTHROP'S COVE
ICE POND
Meadow (Ice Pond in Winter)
Cemetery Road
Ashcraft Road
Ashcraft Lane
Lewis St.
Bank St.
State St.
Federal St.
Main St.
N.L.N. Rail Road
N.Y. & N.H. Rail Road
A
B
C
D
E
0 200 400 600 800

WATER-WORKS.

The city is supplied with water from lake Konomoc. The total cost of the water-works up to September 1, 1880, was $292,206 44. The system is a gravity system; 19½ miles of pipes and mains are laid, varying in size from 24 to 4 inches in diameter, 15 miles of which are for distribution. There are 109 hydrants. The receipts from water-rates, etc., from December 15, 1879, to September 1, 1880, were $23,812 66.

GAS.

The city is supplied with gas by the New London Gas Light Company, a private corporation. Gas is furnished at the rate of $3 per 1,000 feet. The city pays $18 25 for each naphtha street-lamp. There are 711 gas lamps and 141 naphtha lamps.

PUBLIC BUILDINGS.

The public buildings are valued at about $135,000, and include a city hall costing $32,230; engine-houses, valued at $21,750; school-houses, valued at $42,000; an almshouse, etc.

PUBLIC PARKS AND PLEASURE-GROUNDS.

Williams Park is the only park in the city; it was presented to New London, and is valued at $10,000. The yearly cost of maintenance does not exceed $500. It is under the charge of the committee on public property, consisting of 1 alderman and 2 councilmen, appointed by the mayor.

PLACES OF AMUSEMENT.

There is no regular theater in the city. Lawrence hall is fitted with a stage, scenery, etc., but has a level floor and movable chairs; its seating capacity is about 1,000. Military and Allen halls are small halls occasionally used for concerts and lectures. Theatrical companies pay a license of $3 for each performance.

DRAINAGE.

In reply to questions concerning the drainage of the city, the mayor writes: "The only sewers in the city of New London are those constructed by individuals at their own cost, and these are few in number and unimportant."

CEMETERIES.

New London has 1 private and 3 public cemeteries. The public cemeteries are known as the *Ancient Burial-ground* of the town, situated on Huntington street, area 2 acres; the *Second Burial-ground*, on Broad street, area 4 acres; the *Third Burial-ground* on Williams street, area 4 acres. No interments are now allowed in the first or second ground, and although a few are still made in the Third burial-ground, nearly all interments are made in *Cedar Grove Cemetery*. This is situated mostly in Waterford, but is under the jurisdiction of New London; it has an area of 60 acres, and is owned by the New London Cemetery Association. Since October 22, 1857, there have been 2,862 interments in this cemetery. No record of the burials in the other cemeteries can be obtained. No interment can be made until a permit has been obtained from the registrar of vital statistics and presented to the superintendent of interments. Graves in Cedar Grove cemetery must be 4 feet deep for adults and 3 feet for children.

MARKETS.

There are no public or corporation markets in the city.

SANITARY AUTHORITY.

The chief sanitary authority of New London is vested in the common council, and is exercised through a health committee consisting of 1 alderman and 2 councilmen, appointed annually in October by the mayor. The annual expenses of the committee are merely nominal. The power of the committee, both during and in the absence of an epidemic, is absolute to correct nuisances and in every way maintain a good state of the public health. The chief executive officer is the chairman, the alderman on the committee, but his powers are the same as those of any other member of the committee. None receive salaries. The city physician is called in for consultation, and is employed when medical assistance is needed. Until the present year inspections were neglected, but now they are made regularly and thoroughly in all parts of the city.

NUISANCES.

Nuisances are usually reported to the common council, and by it referred to the nuisance committee for examination and abatement. If one is found to exist an order is issued by the health committee ordering the owner to make abatement, and warning him that if the order is disregarded he will be prosecuted, and the

abatement made by the committee at his expense. Defective house-drainage is examined by the committee, and, if necessary, by the city physician, and the owner is obliged to remedy the evil. Defective vaults and cesspools are also under the committee's control.

GARBAGE.

Although the committee has full control of the conservancy and removal of garbage, it has never exercised its authority, leaving householders to make such arrangements as they see fit, and the committee on street-cleaning to attend to such as is left uncared for.

INFECTIOUS DISEASES.

Small-pox patients are removed, if it is safe, to a pest-house on the outskirts of the city; if it is unsafe to make the removal the patient is quarantined at home. Scarlet-fever patients are not ordinarily quarantined, but the attending physician is compelled to keep the committee advised of the condition of his patients, that they may establish a quarantine if necessary. If contagious diseases break out in the public schools, the schools are closed and the scholars watched; such as live in a house where contagion has appeared are quarantined. Vaccination is compulsory among all school-children, and among others when ordered by the health committee. It is done at public expense when the person is too poor to pay. The common council has power to quarantine all vessels from ports where contagious or malignant diseases exist.

REPORTS.

The committee reports monthly to the common council, and, if necessary, oftener.

MUNICIPAL CLEANSING.

Street-cleaning is done by contractors paid by the city, the work being entirely by hand. The principal streets are cleaned every week-day, while the remote parts of the city are cleaned once a week. The contractor in 1880 received $600 for this work. The sweepings are dumped and then used as filling.

Removal of garbage and ashes.—Garbage is removed both by the city and by the householders, the city making a contract. There are no published regulations in regard to the conservancy of garbage while awaiting removal. It is not the custom to keep garbage and ashes in the same vessel, but no regulations govern the matter. Ashes are put on the streets as filling. No separate account of the expense is kept.

Dead animals.—There are no established regulations in regard to the disposal of dead animals, but they are usually removed and buried by the owners. No trouble on this account has ever occurred.

Liquid household wastes.—There is no uniform practice in regard to the disposal of chamber-slops and kitchen and laundry wastes. There are no public sewers; but private parties have laid sewers in some of the streets, and on these streets the household wastes are run into them. Only a small amount runs into the street-gutters. Cesspools are in general use; they are generally porous, only a few having overflows, and very seldom receive the wastes from water-closets. They must be cleaned when complained of. Very few cases of contamination of drinking-water from the soakage or overflow of cesspools have occurred.

Human excreta.—Fully three-quarters of the houses depend on privy-vaults. Where water-closets are used, about one-half empty into sewers, the rest into cesspools. But few of the privy-vaults are even nominally water-tight; they must not be emptied between April 1 and November 1, and at other times only between 11 p. m. and 4 a. m. If the odorless-excavator process of emptying is used, the vaults can be cleaned at any time or season. The night-soil is used by farmers as manure; although its use is not prohibited on lands within the gathering-ground of the public water-supply, still it is improbable that it is used there.

Manufacturing wastes.—No rules govern the disposal of manufacturing wastes.

POLICE.

The police force of New London is appointed and governed by the common council. The chief executive officer is the captain of police, who has the general charge of his department, and receives as salary $64 per month. The rest of the force consists of 1 lieutenant of police, salary $60 per month, and 4 patrolmen, who also receive $60 a month each. The uniform is a navy-blue frock-coat and trousers, with brass buttons, and a black stiff felt hat. Each man provides his own uniform; they are equipped with clubs. The hours of service are divided into three watches—from 4 a. m. to 12 m., from 12 m. to 8 p. m., and from 8 p. m. to 4 a. m. The police patrol 14 miles of streets, and in 1880 made 711 arrests, the principal causes being drunkenness, breach of the peace, and larceny. Free meals are occasionally given to lodgers at the station-house, at a trifling cost. The police are expected to co-operate with the other departments when needed. Special policemen are appointed by the mayor for 30 days, receiving the same pay and having the same powers as the regular force while on duty. The total cost of the police department in 1880 was $4,800.

FIRE DEPARTMENT.

The fire department of the city is under the charge of a fire committee of 1 alderman and 2 councilmen. The chief executive officer is a chief engineer. The apparatus consists of 2 steam fire-engines, 1 in poor condition, and 1 hand-engine; 4 hose-carriages; 1 hook-and-ladder truck; and 4,950 feet of hose, 500 feet of which is of linen rubber-lined, 1,950 feet of cotton rubber-lined, and 2,500 of leather hose, part of which is in poor condition. During the year ending September 2, 1880, there were 5 slight fires. The total cost of the department for 1880 was $1,851 56.

COMMERCE AND NAVIGATION.

[From the reports of the Bureau of Statistics for the fiscal years ending June 30.]

Customs district of New London, Connecticut.	1879.	1880.
Total value of imports	$175,526	$183,233
Total value of exports:		
Domestic	$59,572	$60,707
Foreign	$2,132	$232
Number of immigrants	1	None.

Customs district of New London, Connecticut.	1879.		1880.	
	Number.	Tons.	Number.	Tons.
Vessels in foreign trade:				
Entered	26	4,652	25	4,498
Cleared	15	2,532	12	2,330
Vessels in coast trade and fisheries:				
Entered	42	7,825	58	9,382
Cleared	42	10,057	36	9,317
Vessels registered, enrolled, and licensed in district	208	21,801	200	22,231
Vessels built during the year	1	5½	2	133½

NORWICH,

NEW LONDON COUNTY, CONNECTICUT.

POPULATION

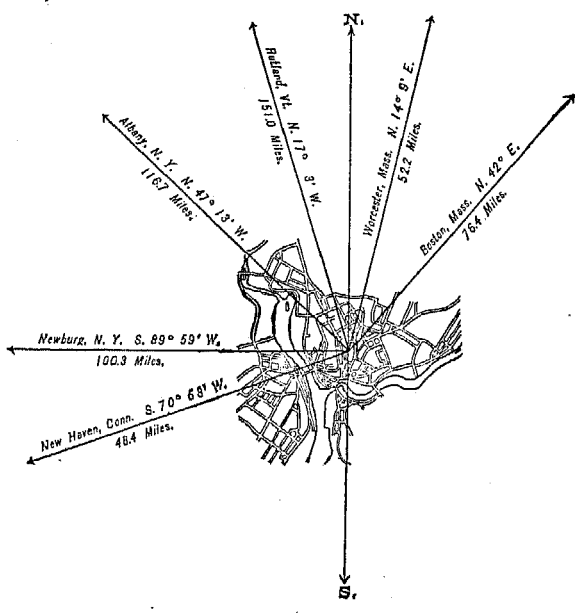
IN THE

AGGREGATE,

1800-1880.

	Inhab.
1790	.....
1800	3,476
1810	2,976
1820	2,963
1830	3,135
1840	4,200
1850	6,139
1860	*14,048
1870	*16,653
1880	15,112

* Includes the whole township.



POPULATION

BY

SEX, NATIVITY, AND RACE,

AT

CENSUS OF 1880.

Male	7,095
Female	8,017
Native	11,434
Foreign-born	3,678
White	14,621
Colored	*491

* Including 7 Chinese and 18 Indians.

Latitude: 41° 32′ North; Longitude: 72° 4′ (west from Greenwich); **Altitude: 3 to 225 feet.**

FINANCIAL CONDITION:

Total Valuation: $13,349,295; per capita: $631 00. Net Indebtedness: $1,191,257; per capita: $56 34. Tax per $100: $1 67.

HISTORICAL SKETCH.

Norwich, when first purchased from the Indians, June 6, 1659, consisted of a tract of wild land 9 miles square in the heart of the Mohegan country, at the head of what was then called the Mohegan or Pequot river. The project of establishing a plantation in the Mohegan country, 14 miles above New London, seems to have originated with a Captain Mason, who was a man of influence in the colony, and had not only founded the towns of Dorchester and Windsor, but had helped the settlement of Saybrook when the people already there began to get discouraged. A number of the best men of Saybrook joined Mason in his scheme. The general court at Hartford was petitioned, and in May, 1659, permission was granted certain inhabitants of Saybrook to plant a settlement in the Mohegan country. In the fall of the same year, a deed of the land having been obtained from the Indians, the township was surveyed, the central village laid out, a highway opened, and the house-lots were measured and assigned. By

winter some cabins had been built, and in one of these 5 men remained until spring. In the following summer (1660) the 38 proprietors of Norwich came in, occupied their lands, and inaugurated the town, sending 2 deputies to represent them to the general court at Hartford in October of the following year.

There seems to have been no special act of incorporation for the town. The records of the general court show that as early as 1660–'61 the constable of Saybrook was directed to levy on certain estates in "Norridge" which were delinquent in their taxes, and in May of the following year the court ordered a committee to settle the affairs of the settlement of Norwich. The town records date as early as 1660. The name was given the place in honor of Captain Mason's supposed English home—Norwich, Norfolk county, England.

The land first taken up and laid out in house-lots was generally along the rivers, and was well adapted for mowing, pasturage, and tillage. Unlike most of the early settlements of New England, the proprietors of Norwich made all their plans before moving thither, and came upon the ground with all the elements of a town and a church ready formed. They were all agriculturists, and they sat down in their new home with a determination to conquer the wilderness around them, to build up the institutions of religion and education, and to leave their children members of a secure and cultivated community. That they succeeded is shown by the city of to-day, and the fact that some of the original home-lots remained in the possession of the families of the first proprietors for nearly two hundred years. For the first century of its existence, Norwich steadily progressed. During King Philip's war it was, owing to its position as a frontier town, frequently menaced by the hostile Indians, and though it was garrisoned nearly all that time, it escaped any serious disaster. The annual expenditures of the town amounted to only a very small sum, and its growth was solely due to the energy and perseverance of its inhabitants. During the French wars Norwich was remote from the scenes of strife and danger, and not only sympathized with her frontier kindred in their perils, but sent many of her sons into the army. In 1756 the population of the town was estimated at 5,540, of whom 223 were colored.

In 1760 the commerce of Norwich, which had already begun to assume some importance, received a considerable impulse. The original landing-place had been just below the falls at the head of the Yantic basin, but as business places began to be built lower down, the landing was transferred to a point where the rivers unite and there form the Thames. About this time Nova Scotia was opened to emigrants, and speculation was busy with its lands. The people of the eastern part of Connecticut, and several of the citizens of Norwich in particular, made investment in the new country, and sloops were fitted out, both here and in New London, with provisions and passengers. A back country of some extent made its deposits here, and the town extended its commerce, not only to the towns of the colony on the Atlantic coast, but to the West Indies, England, and European ports. New London was the port of entry, but many of the vessels were owned in and sailed from Norwich. During the later French wars the risks were great and commerce was considerably affected; but after the peace of 1763 there was a great increase in trade, and it continued lively until checked by the Revolution.

Norwich took an early and active part in the Revolution, and contributed liberally both of men and of means toward the struggle for independence. From her secure inland position she escaped attack, and many privateers slipped down the Thames and out on the sound to prey upon the commerce of the enemy. It is reported that in 1781–'82 the town was overflowing with merchandise, both tropical and European, most of which was obtained by successful privateering.

Benedict Arnold, whose services to his country in the earlier part of the war are well-nigh forgotten in his later treason, was born in Norwich and lived here during the days of his youth and early manhood. The house in which he was born stood for many years, and was in a good state of preservation until demolished in 1853.

After the proclamation of Congress announcing a cessation of hostilities between Great Britain and the United States (April 11, 1783), Norwich shared in the general impulse that peace gave to maritime pursuits and built up an extensive trade, notably with the West Indies—the horses and cows of the back country converging here as they sought markets abroad. The town prospered and its shipping increased. In 1789 the total value of exports for fifteen months was £34,218, and the value of imports for the same period, £24,793. The total shipping owned in the city at this time aggregated 2,010 tons. In 1795, the tonnage of Norwich had risen to 4,312 tons. The war between France and England in 1803, then the embargo, and finally our own war with Great Britain, 1812–'15, ruined the commerce of Norwich. The last vessel that left here for Europe at this time cleared in November, 1812, and it was not until 1833 that Norwich sent out another ship for a transatlantic port.

The people of Norwich early turned toward manufactures, and in the latter part of the last century iron cutlery, oil, iron wire, paper, clocks, and stockings were made. The war of 1812 gave the manufacturing interests a decided impetus, 4 cotton-mills, 2 woolen-mills, and a nail factory being put in operation between 1813 and 1816. The cork-cutting business also became quite prominent. Some of these industries were discontinued, but the majority of them grew, and to-day form no inconsiderable part of the city's prosperity.

Norwich was one of the 5 towns of Connecticut to which city charters were granted by the legislature in May, 1784. A few years later a portion of the northern section of the town was taken from the city, and in 1874–'75 the limits were slightly extended. The mayors under the first charter were chosen by the freemen of the city and held office during the pleasure of the general assembly. In 1871 a new charter was granted, and, among the changes, the term of the mayor was fixed at two years.

NORWICH IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of Norwich:

LOCATION.

Norwich lies in latitude 41° 32′ north, longitude 72° 4′ west from Greenwich, at the head of the Thames river, here formed by the junction of the Shetucket and Yantic rivers, 14 miles above New London. The average altitude above mean low water is 25 feet. The lowest point is 3 feet and the highest 225 feet above mean low water. The channel of the Thames river is 12 feet deep and from 100 to 200 feet wide. The length of dockage at the city is 8,000 feet, 2,000 of which has 12 feet of water, 2,000 has 8 feet, and the remainder 6 and 7 feet. The rise and fall of the tide is 3 feet.

RAILROAD COMMUNICATIONS.

Norwich is touched by the following-named railroads:

The Norwich and Worcester railroad to Worcester, and connecting there with through lines to Boston on the east and Albany on the west. The New London Northern railroad to Brattleborough on the north and New London on the south.

TRIBUTARY COUNTRY.

The country immediately tributary to Norwich is agricultural and manufacturing. The agriculture is principally gardening and dairy produce, while to the south considerable amounts of strawberries are raised for shipment. All the streams in the vicinity are utilized for manufacturing-purposes, prominent among which are cotton- and paper-mills.

TOPOGRAPHY.

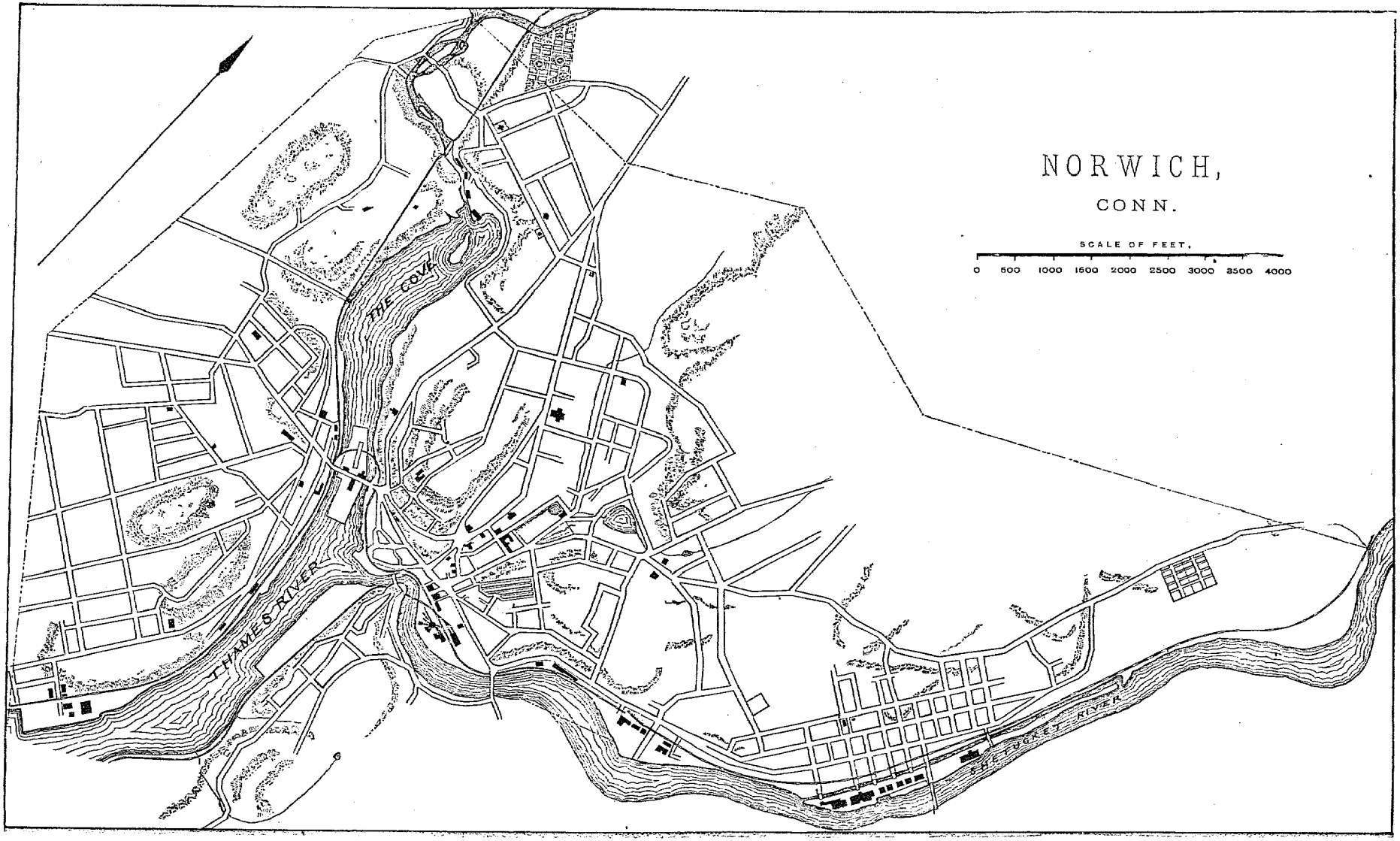
Norwich is located on the head of a promontory, and slopes directly on the south and east to the Shetucket river, and on the west to the Yantic. The underlying rock is granite, of such irregular grain as to be of little use for building-purposes, etc. The soil is loose and gravelly. Variations of levels are abrupt, there being declines of 12 to 20 feet in 100, except in the northerly part, which is a plain. The natural drainage is good, except in the level part of the city. Surrounding the city are hills greater in height than the land upon which it is built, which slope down to the rivers and smaller streams that separate them from the city. There is little or no moist land about the city, no lakes, and but few natural ponds. There are, however, several artificial ponds used for the storage of water for manufacturing-purposes. The surrounding country is considerably wooded. The soil in the vicinity has a greater inclination toward clay than that underlying the city, but the general nature of all soil in this vicinity is light and sandy.

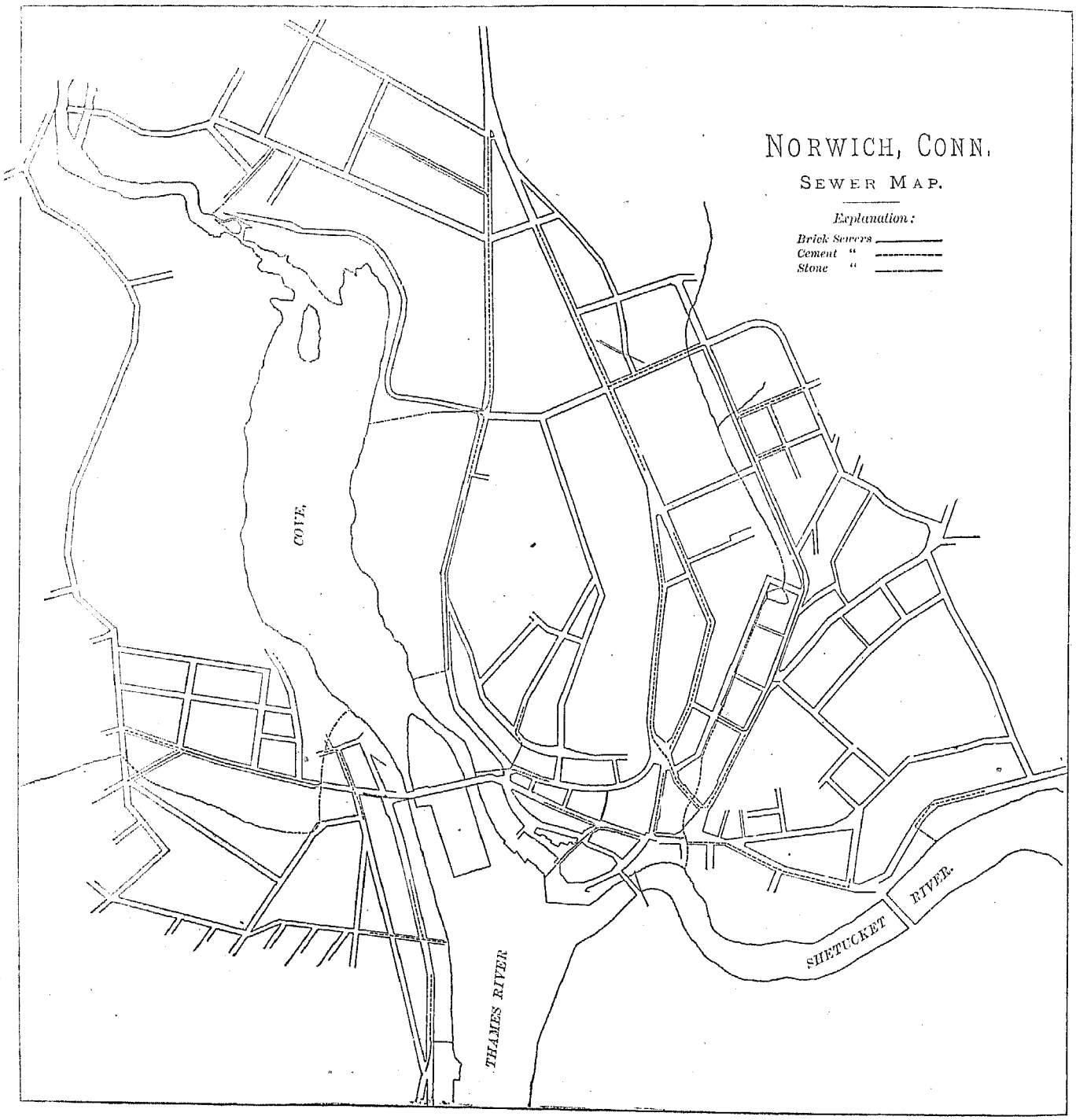
CLIMATE.

No information on this subject was furnished.

STREETS.

Total length, 37½ miles. Of these, 0.2 mile is paved with cobble-stones, 0.324 mile with stone blocks, 1.75 mile with broken stone, and 70 feet with wood. The cost per square yard, as near as could be ascertained, was, for stone blocks, $2 25 to $3 50; cobble-stones, $1; broken stone, $2 50, and wood, $3 55. The heavy cost of the broken stone is attributable to the difficulty with which the rock is broken, it having cost as high as $1 97⅓ per square yard simply for the preparation of the stone. Stone blocks require little or no repair, and the cobble-stones about $10 50 a year, and the broken stone a great deal. Wood is the easiest cleaned; then stone blocks, broken stone, and the cobble-stones. Stone blocks are deemed best for quality and permanent economy; then broken stone; while the other two are not considered very desirable. Sidewalks are almost wholly of flagstones or concrete, the former predominating, and the curbs are of bluestone 4 to 6 inches thick. The gutters are uniformly of cobble-stones, except where the streets are paved with stone blocks, and then they are either of that material or of bluestone laid flat. Tree-planting is not done by the city, although quite general by the abutters, who are required to obtain permission, and then do the work under the direction of the street commissioner. Annual cost of repairs, $9,500, and the work is done by the day, that class of work being preferred. A steam stone-crusher is used with satisfactory results. There is 1 horse-railroad, with a total length of 6 miles, having 10 cars, 32 horses, and employing on an average 15 men. The line is owned in Boston, Massachusetts. The rates of fare are 5, 8, and 10 cents. An omnibus line, with 2 vehicles, 10 horses, and 1 man, carries passengers for 5 cents each.


NORWICH,
CONN.
SCALE OF FEET.
0 500 1000 1500 2000 2500 3000 3500 4000
THE COVE
THAMES RIVER
SHETUCKET RIVER


NORWICH, CONN.
SEWER MAP.
Explanation:
Brick Sewers
Cement "
Stone "
COVE.
THAMES RIVER
SHETUCKET
RIVER.

WATER-WORKS.

The water-works are owned by the city, and their whole cost to March 31, 1880, was $411,879 44. The water is impounded in a reservoir of 350,000,000 gallons capacity, and from there distributed by gravitation. The level of the overflow is 250 feet above tide-water, and the pressure in the mains varies from 108 pounds to the square inch at tide-water to 95½ pounds at Franklin square. The average daily consumption is estimated at over 100 gallons per capita of the population. The yearly cost of maintenance and repairs is $7,583 36, and the annual income from water-rates $24,687 67. The annual interest on the water-bonds is $16,500. There are 31 miles of street-mains, 247 gates, and 254 hydrants.

GAS.

Gas is supplied by the Norwich City Gas Company, a private corporation.

PUBLIC BUILDINGS.

Exclusive of the city hall, Norwich owns and occupies for municipal uses, wholly or in part, buildings valued at $36,000. The city hall is owned jointly by the city, town, and county. The city's portion is given at $164,000.

PUBLIC PARKS AND PLEASURE-GROUNDS.

There are 3 parks in the city, with a total area of 8 acres, as follows: *Williams Park*, in the northerly part of the city; *Franklin Park*, between Franklin street and Boswell avenue; and the *Little Plain*, between Broadway and Union streets. None of these are laid out with paths, but all have trees. The two best are inclosed. The land was presented to the city. No record could be found of the cost of construction, but it could not have been much. The yearly cost of maintenance for all the parks is not over $100. They are controlled by a committee of the city government, composed of aldermen and councilmen.

PLACES OF AMUSEMENT.

There are no regular theaters in the city. Breed hall, with a seating capacity of 1,200, and fitted with a stage and scenery, is used by traveling shows. Each exhibition pays a license of $5 to the city, amounting in the course of the year to $150. Steiner's hall is used for concerts, lectures, etc.

DRAINAGE.

Previous to the introduction of water by the city, in 1868, many storm culverts had been built for surface-water, and some natural streams had been walled and covered. House-drains emptied directly on the surface, into cesspools, into the street-gutters, into the above-named culverts, into natural streams, or, in a few cases, into poorly-constructed sewers. Some of the latter have been replaced by pipe-sewers; others are still in use. Most of the sewers shown on the accompanying map have been constructed since that time and in 1880. The location of many old sewers is a matter of tradition, and those are not represented on the map.

There is no regular plan for the sewerage of this city. The location, size, depth, and material of each sewer is regulated according to the requirements of each case as it comes up. There are no ordinances regulating the connection of private drains with sewers and public drains, or of the substances which may legally be admitted thereto.

There is no provision for the ventilation of the sewers.

The mouths of the sewers are generally fully exposed, except when the river is swollen by freshets.

All sewers empty directly or indirectly into the Thames river.

In only one or two cases has it been necessary to remove deposits from brick or pipe sewers. Stone culverts for street-service water need frequent hand-cleaning.

The cost of the work is borne partly by the city and partly by abutters, but no regular system of assessments has been adopted.

The cost of the work is thus stated:

Excavation per linear foot for brick sewers: 14-foot cut, $1 20; 9 foot cut, 75 cents.

Excavation and pipe-laying, exclusive of cost of pipe: 6-foot cut, 40 to 45 cents per linear foot; 7-foot cut, 50 cents per linear foot; 5-foot cut, connecting manholes with basins, 30 to 35 cents.

Brick furnished and laid in sewers and manholes and catch-basins, $15 per 1,000.

CEMETERIES.

There are 9 cemeteries and burying-grounds in Norwich, viz, *Trinity Church Cemetery*, *Norwich Town Cemetery*, *City Cemetery*, *Yantic Cemetery*, *Saint Mary's Cemetery* (Roman Catholic), *Greenville Cemetery*, *West Plains Cemetery*, *Yerington Burying-ground*, and *Beebee Burying-ground*. The first of these is no longer used for interments, and the

two last are private grounds. The number of interments in any or all of the above was not reported. Burial permits are required. There is no limit of time after death for interment, except in case of contagious disease. The depth of graves must be at least 4 feet from the surface of the ground to the top of the coffin.

MARKETS.

There are no public or corporation markets in the city.

SANITARY AUTHORITY—HEALTH COMMITTEE.

The chief sanitary authority of Norwich is the health committee, consisting of 3 members, appointed annually by the city council. The committee is authorized to abate all nuisances; to do what may be necessary for the prevention and spread of disease; to have general sanitary care of the city, and to see that all health ordinances are enforced. The annual expense of the committee in ordinary times is $100 for salary of physician, and there is no limit fixed for the increase of expenses in case of epidemic. The chairman of the committee is the chief executive officer. He receives no salary for this duty. There are four assistants, 1 being a physician and 3 being policemen. Inspections are made only as nuisances are reported. When a nuisance is reported it is investigated, and, if found to exist, is ordered abated at once, the committee having the authority to cause the order to be enforced. All defective house-drainage, privy-vaults, cesspools, and sources of drinking-water are inspected and corrected only when reported. The street department has control over all defective sewerage and street-cleaning. The committee exercises no control over the conservation and removal of garbage, nor makes any regulations concerning the burial of the dead. The committee sees that the removal of all excrement is done in a proper manner.

INFECTIOUS DISEASES.

Small pox patients are removed to the pest-house, situated on the town farm outside the city limits. Scarlet-fever patients are isolated at home. The committee closes the public schools in case of small-pox or scarlet fever. Vaccination is compulsory and is done at the public expense.

The city registrar keeps the record of all diseases, births, and deaths.

REPORTS.

The committee reports quarterly to the common council, but the reports are not published.

MUNICIPAL CLEANSING.

Street-cleaning.—The streets are cleaned at the expense of the city and with its regular force. The work is done wholly by hand, no sweeping-machines being used. The streets are cleaned as occasion requires, probably once a month, and it is done to the satisfaction of the city. The annual cost of the work is $830 50, and the sweepings are deposited on the city's dumping-ground, at the Yantic cove, as filling, a small portion being sold to farmers for manure.

Removal of garbage and ashes.—All garbage and ashes are removed by the city with its own force every Tuesday and Friday. It must be placed in suitable vessels and set out on the sidewalks convenient for removal, and the receptacles must be taken in when emptied. Garbage and ashes are allowed to be kept in the same vessel, and they are disposed of in the same manner as street-sweepings. The yearly cost of this service is $750 60. No ill-effects from the system are reported, and it is stated to be satisfactory.

Dead animals.—The carcass of any animal dying within the city limits is supposed to be removed by the owner, but as there are no ordinances on the subject, the matter probably comes under the attention of the street commissioner.

Liquid household wastes.—About one-third of the liquid household wastes are run into the sewers, the balance going into cesspools. The law forbids any portion of the wastes from going into the gutters, but it is sometimes done when sewers do not exist. The cesspools are generally porous, are not provided with overflows, receive the wastes from water-closets, and must be cleaned out when full. The gutters are flushed as occasion requires.

Human excreta.—About one-third of the houses in the city have water-closets, one-half of which deliver into the sewers and the remainder into cesspools, and the rest depend on privy-vaults. All vaults must be at least 6 feet deep and must be cleaned at night between November 1 and April 1. The night-soil is taken out of the city and used for manuring land, none of it being allowed within the gathering-ground of the public water-supply.

Manufacturing wastes.—There are no special regulations for the disposal of liquid manufacturing wastes, except where such disposal is liable to affect the public water-supply, and then the penalty against it is heavy.

POLICE.

The police force is appointed annually by the common council, and governed by a committee of 3 members of that body, styled the board of police commissioners. The chief of police is head of the force and superintends it.

He receives no salary and his position is only honorary. The captain of police, salary $1,100 per annum, is the chief executive officer; he commands the force and sees that all laws and ordinances are enforced. There are 1 lieutenant, with a salary of $2 50 per day; 2 sergeants, at $2 37½ per day each; and 14 patrolmen and 3 supernumeraries, at $2 25 per day each. The uniform consists of a dark-blue double-breasted blouse, with a frock coat in winter, and a police hat. Each man provides his own uniform, at a cost of $45. The men are equipped with clubs and revolvers. The day officers are on duty ten hours and the night officers nine hours, and the total length of streets patrolled by the force is 20 miles. During the past year 727 arrests were made by the police, the principal causes being, intoxication, 318; breach of the peace, 164, and minor offenses, 245. Some of these were convicted, and others discharged for want of evidence. The total amount of property lost or stolen during the year and reported to the police was $300, all of which was recovered and returned to the owners. The number of station-house lodgers for the year was 237, as against 1,394 in 1879. No free meals, only crackers, are given to the lodgers. The force is required to co-operate with the fire and health departments. Special policemen are appointed by the common council, but they have nothing to do with the regular force. The yearly cost of the force (1880) is $15,000.

FIRE DEPARTMENT.

The force consists of 1 chief and 4 assistant engineers, and 240 men, the chief being employed permanently. The apparatus in service consists of 4 steam fire-engines, 7 four-wheel hose-carriages, 4 two-wheel hose-carts or jumpers, and 7,000 feet of hose. The fire-alarm telegraph is reported as being in good condition. The chief engineer is also fire marshal and superintendent of the fire-alarm telegraph. He receives a salary of $1,000.

WATERBURY,

NEW HAVEN COUNTY, CONNECTICUT.

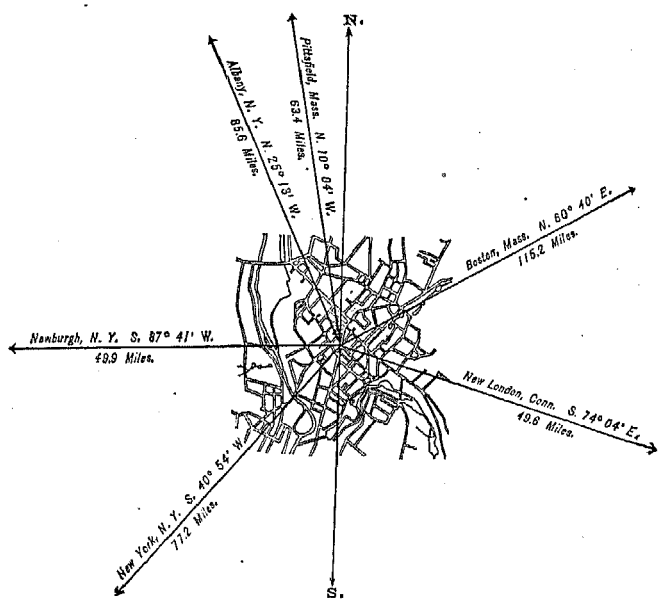
POPULATION

IN THE

AGGREGATE,

1800-1880.

	Inhab.
1790	.....
1800	3,256
1810	2,874
1820	2,882
1830	3,071
1840	3,668
1850	5,137
1860	10,004
1870	10,826
1880	17,806



POPULATION

BY

SEX, NATIVITY, AND RACE,

AT

CENSUS OF 1880.

Male	8,890
Female	8,916
Native	12,505
Foreign-born	5,301
White	17,670
Colored	*136

*Including 3 Chinese.

Latitude: 44° 33′ North; Longitude: 73° 2′ (west from Greenwich); **Altitude: 260 to 510 feet.**

FINANCIAL CONDITION:

Total Valuation: $8,054,208; per capita: $397 00. Net Indebtedness: $361,508; per capita: $17 83. Tax per $100: $2 09.

HISTORICAL SKETCH.

In 1673 the general court of Connecticut granted the petition of certain inhabitants of Farmington for a "plantation of Mattatuck", and appointed a committee of five to regulate and order the settling of a plantation there. A tract of land, 10 miles in length from north to south and 6 miles wide from east to west, lying on both banks of the Naugatuck river, was purchased from the Indians for £38 and "divers good causes".

A site was chosen by the committee in 1674 on the west bank of the river, on an elevated plateau; and two roads were laid out, one running north and south, the other east and west, along which house-lots of 8 acres each

were laid out. With this, however, all progress stopped, for in the next year the war with the Narragansetts and the allied tribes under King Philip began, and the attention of the settlers was occupied in preserving the old rather than in making new settlements. In the spring of 1677 the war was over, and the settlers began to think of returning to Mattatuck. Dissatisfaction was expressed with the site chosen by the committee, for it was difficult of access, and the Naugatuck flowed between the plantation and the old town of Farmington, to which the settlers must look for help and refuge in any emergency. Accordingly the site was changed to the east bank of the river, the settlers contenting themselves with smaller house-lots. The first buildings were erected in the summer of 1677; they were simply rude huts, and probably the planters after gathering their harvest returned to Farmington to pass the winter.

Considerable difficulty seems to have arisen in obtaining settlers, for the proprietors found it necessary to attract new-comers by offering them grants of land. Especial attention was given to mechanics and men of trade, but these additions proved to be of no use in many cases, for not a few stayed only long enough to perfect their title to the lands. To prevent this, a rule was made that those receiving grants must live in the town four, five, or even six years before obtaining a perfect title. In 1684 the territory of the plantation was extended by another purchase from the Indians, so that in 1686, when Mattatuck was incorporated as the town of Waterbury, the township was 18 miles in length from north to south along the river, 9 miles wide near the north, and 5 miles at the south. Its growth in population was slow, and for many years it was engaged in vexatious contests with the neighboring towns for the possession of some of its lands. In 1691 the Naugatuck rose suddenly, carrying away the mills and bridges and covering with straw and *débris* the fields which had just been planted and in many cases washing the earth entirely away.

The town was kept in constant alarm during the war between France and England, from 1700 to 1713, for fear of attacks from the Indians who were under the influence of the French in Canada. As Waterbury was a frontier town, the general court compelled her to keep 2 men constantly employed as scouts, and in 1704 stationed a garrison of 10 men in the town. In 1717 Waterbury erected two forts which were supported at the public expense and one which she maintained at her own; but no attack was made by the Indians until 1710, and even then the town escaped with little loss. In 1712 came another misfortune, for in that year a "great sickness" was epidemic in the town, raging eleven months and carrying off one-tenth of the population. These events contributed to check progress, and many, especially the younger men, becoming discouraged, thought seriously of leaving the town. To prevent so serious a loss the proprietors offered 30 acres of land and a "propriety" of £40 in the common lands to such young men as would build a tenantable house and improve the land, conditions that were later increased by requiring a residence of five years after the house was built. Even these inducements failed to keep many of the young men who left Waterbury after staying just long enough to obtain their "bachelor rights", as these grants were called.

The peace of 1713 brought brighter prospects and settlers began to come steadily and rapidly, so that in 1727 the population was estimated at 300 souls. The great religious movement of 1740 and 1741 caused animosities between the "New Light" and the "Old Light" which it took years to heal. The first Episcopal society in the town originated in this period of strife. In 1749 Waterbury was again visited by an epidemic, which removed 90 from her population of 1,500. The crops were neglected, for every able-bodied person was needed to care for the sick, and famine was feared; but the town escaped this double misfortune. In 1755 the population was increased by 6 Arcadian peasants, Waterbury's share of the Arcadian farmers whom the British removed from their homes and scattered from New Hampshire to Georgia.

The people were much divided over the question of resistance to England. The Episcopalians remained loyal, while the greater part of the people were zealous patriots. In 1775 Waterbury sent 152 soldiers to the Continental army, while in the next year 80 of her citizens left the town to join the British in New York. Some of them were captured *en route*, but the larger part reached New York in safety. Not only did the town suffer the ordinary loss and hardship of the war, but also during its continuance lost Westbury and Northbury, the richest parts, which were made the town of Watertown in 1780.

It was during this time that the first germ of the future importance of Waterbury appeared, for one of her citizens began the manufacture of guns, making them of brass. In 1790 another citizen began to make wooden clocks, and in 1800 the first water-wheel used for driving manufacturing machinery was built to aid in the clock factory. The manufacture of buttons began in 1802; in 1812 a company was organized to manufacture clocks, and in the same year Deacon Aaron Benedict began to make bone and ivory buttons. The real growth of Waterbury as a manufacturing town began in 1823, when the partnership known as "A. Benedict" was formed for the manufacture of gilt buttons. The business grew steadily; from making buttons it was extended to the manufacture of sheet brass and copper, and brass and copper tubing, pins, and clocks. As fast as any branch became sufficiently important to stand by itself a division of the company's stock was made and the new business made independent. In this way the American Pin Company was formed in 1846, the Waterbury Button Company in 1849, the Benedict and Seavill Company in 1852, and the Waterbury Clock Company in 1857.

In 1853 the city of Waterbury, a part only of the township, was incorporated, and in 1871 this old charter was practically repealed by the granting of a new one. Between 1850 and 1860 the population nearly doubled, but

during the following decade the increase was very slight. In the time from 1870 to 1880, however, the increase again became rapid. The city has large manufactures of all kinds of brass and copper goods, pins, clocks, German-silver ware, etc., and is to-day the fifth city in the state.

WATERBURY IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of Waterbury:

LOCATION.

Waterbury is situated in latitude 41° 33′ north, and longitude 73° 2′ west from Greenwich, on both sides of the Naugatuck river, which is not navigable at this point. The average altitude is about 363 feet above the sea-level, the highest point rising 510 feet above the sea, the lowest 260 feet.

RAILROAD COMMUNICATIONS.

The Naugatuck railroad, connecting with the New York, New Haven, and Hartford railroad at Bridgeport, Connecticut, and the Connecticut Western railroad at Winsted, Connecticut, pass through the city; and the New York and New England railroad, termini Boston, Massachusetts, and Brewster, New York, furnishes communication with Boston and New York.

TRIBUTARY COUNTRY.

Waterbury is the market town of the surrounding country, which is chiefly agricultural. The land is not excellent for farming-purposes, though it is quite good in some places.

TOPOGRAPHY.

The underlying rock of the region about Waterbury is gneiss overlaid with drift and numerous glacial moraines. The evidences of glacial action are abundant. The soil is gravelly loam. Nearly four-fifths of the surrounding country is covered with a second growth of timber, mostly chestnut, and several species of oak. There are no considerable ponds, marshes, or lakes in the vicinity, while none of the surrounding hills are more than 400 feet high. The city lies in the valley of the Naugatuck river, and the natural drainage through the river is excellent.

CLIMATE.

The highest recorded summer temperature is 102°, while the highest in average years is 96°. The lowest recorded winter temperature is −24°, the lowest in average years being −12°. The surrounding hills give a pure, cool, and bracing atmosphere. The winds are variable.

STREETS.

Waterbury has about 30 miles of streets, none of which are paved. The estimated cost of keeping these in repair is $7,500 annually. The sidewalks are of flagstone and concrete, the gutters of cobble-stone. All repairs are done by day labor. The streets are lined with trees in many places, set either on the sidewalks or in private grounds near them. There are no horse-railroads or omnibus lines.

WATER-WORKS.

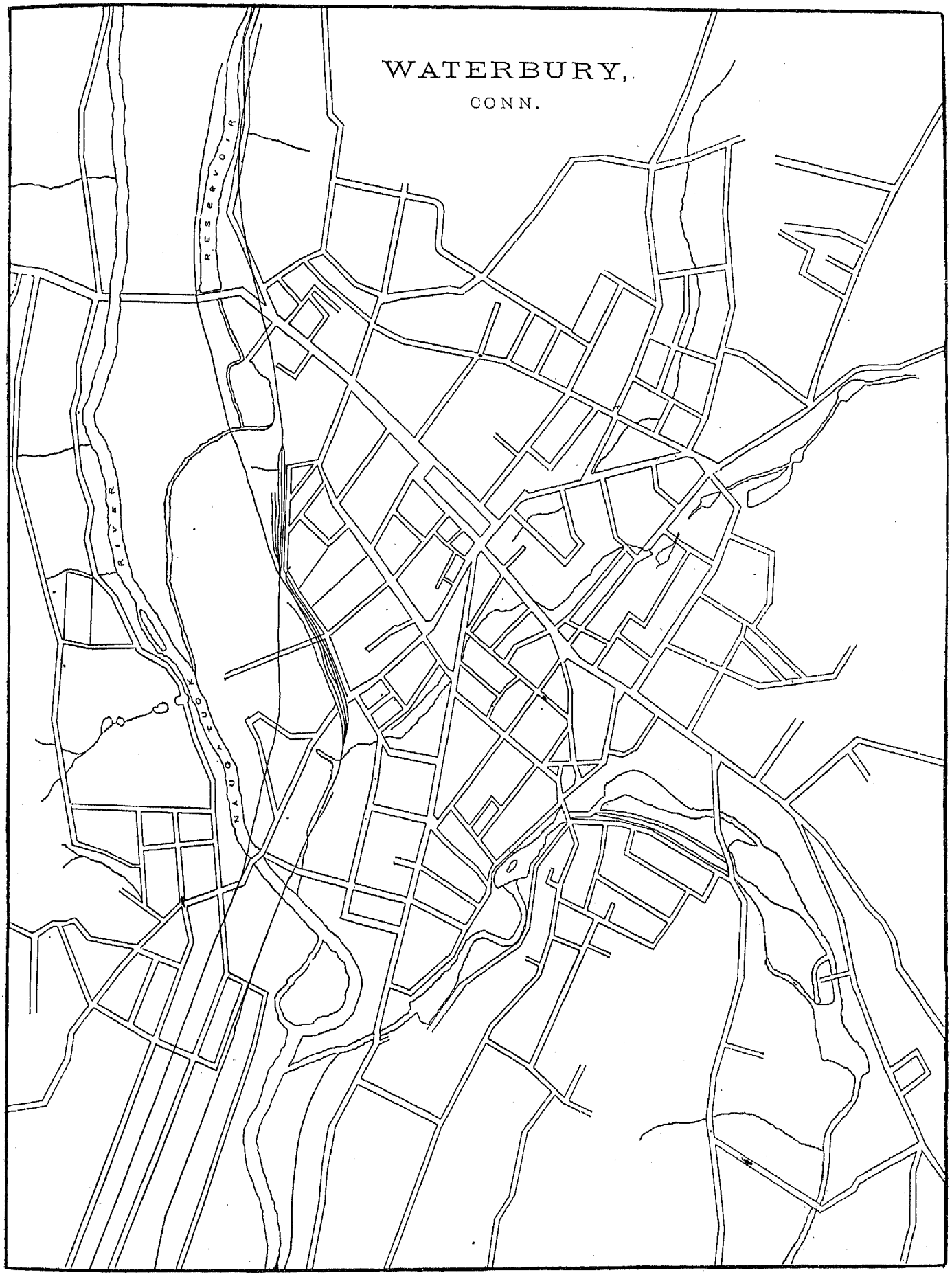
The total expense of the water-works has been $265,488 37 up to December 31, 1879. The system is a gravity system, furnishing a pressure of 100 pounds to the square inch. The yearly cost of maintenance is $4,000, while the annual income from water-rates is $24,000. About 25 water-meters, either Worthington or Ball and Fitts rotary meters, are in use.

GAS.

The gas-works are not owned by the city. The daily average production is 42,375 cubic feet, which is sold at the rate of $2 per 1,000 feet. The city pays $21 a year for each gas street-lamp, of which 128 are in use.

PUBLIC BUILDINGS.

The city hall is valued at $140,000, and is owned by the city and town in equal shares. The value and number of other public buildings, such as school-houses, engine-houses, etc., was not reported.


WATERBURY,
CONN.
RESERVOIR
RIVER
NAUGATUCK

PUBLIC PARKS AND PLEASURE-GROUNDS.

The only public park is the "*Green*", or *Center Square*, a plat of smooth grassed lawn in the center of the city, about 2 acres in area. It is shaded by elms of about thirty-five years' growth. The annual cost of maintenance is $200. The care of the "Green" rests with the common council.

PLACES OF AMUSEMENT.

There is no regular theater in Waterbury. City hall, seating 1,500; Irving hall, 600; Theater Comique, 200, and Meyers' hall, 300, are used for concerts, lectures, and entertainments of all kinds. The city requires a license of $5 for each performance or exhibition. There are no concert- or beer-gardens in the city.

DRAINAGE.

Waterbury has no system of sewerage or drainage.

CEMETERIES.

There are 3 cemeteries in the city of Waterbury, as follows:

Riverside Cemetery, area about 40 acres, is situated in the west part of the city, between Wilson, Summer, and Riverside streets; it is owned by a private corporation, and was established about 1853.

Town Cemetery is a public burial-ground of about 3 acres adjoining Riverside cemetery, and was opened in 1856.

Saint Joseph's Roman Catholic Cemetery, area about 15 acres, is situated between Dublin and Silver streets in the extreme southern part of the city.

There is an old town burying-ground near the center of the city which is now unused, while beyond the city limits, but in the town of Waterbury, there are ten small cemeteries. Saint Joseph's cemetery is under the control of the Roman Catholic church, while the owners of the lots form the association which owns and manages Riverside cemetery. There have been 2,200 interments in the latter cemetery. Permits must be obtained from the registrar of vital statistics before an interment will be allowed. Graves in Saint Joseph's cemetery must be 4 feet deep; in Riverside, 5 feet.

MARKETS.

There are no public or corporation markets in the city.

SANITARY AUTHORITY—BOARD OF HEALTH.

The chief sanitary authority of Waterbury is the town board of health, consisting of 5 members, one of whom is a physician. The expense of the board in 1879 was $10; of which $5 was for clerical services and $5 for investigating a complaint. There are no restrictions in regard to expense, and its authority is equally unrestricted. The chief executive officer of the board is the first selectman of the town. He receives no extra salary for his duty on the board, and has power to investigate complaints and abate nuisances in concurrence with other members of the board. No assistant health officers or inspectors are employed. Inspections are made as nuisances are reported; a meeting is then called and an investigation ordered. The board is appointed by the civil authorities, and is independent of the city government. No control is exercised over the keeping and removal of garbage unless it becomes a nuisance.

INFECTIOUS DISEASES.

Small-pox patients are isolated by removal to a pest-house just outside the city limits, but within the town. Scarlet-fever patients are not isolated or quarantined in any way. No cognizance of the breaking out of contagious diseases in the public schools is taken by the board. Vaccination is not compulsory.

REPORTS.

The board makes no report.

The registration of births and deaths is in the hands of the registrar of vital statistics.

MUNICIPAL CLEANSING.

Street-cleaning is done by the city with its own force and wholly by hand labor. The cleaning is done when necessary, as there are no paved streets; generally done only in spring and fall. No separate account of the cost is kept. The sweepings are used as filling, chiefly on private grounds.

Removal of garbage and ashes.—Garbage and ashes are removed by the householders. No regulations govern the matter, except in so far as it creates a nuisance. Garbage is not allowed to be thrown into the street. Ashes and garbage may be kept in the same vessel.

Dead animals must be buried or removed beyond the city limits by the owner, under penalty of a fine of not more than $15 nor less than $5 for neglect or refusal to comply with the rule.

Liquid household wastes.—Chamber-slops and kitchen and laundry wastes are nearly all run into cesspools or private sewers, as there are no public sewers; very little runs into the street-gutters. The cesspools are porous and without overflows; they largely receive the wastes of water-closets. No cases of contamination of drinking-water from these cesspools have occurred, probably because the public water-supply is used, and this is removed from any contamination. No evils seem to result from this lack of system; the public health is good, and zymotic diseases are not very prevalent.

Human excreta.—Only about one-eighth of the houses in Waterbury have water-closets, the rest depending on privy-vaults. All alike empty into cesspools or running streams; very few of the vaults are even nominally water-tight. The vaults can be cleaned only by licensed persons, and the contents must be removed in tight carts, and only between 10 p. m. and 4 a. m. in the months from the 1st day of November to the 15th day of April. The night-soil is composted and used as manure; none is used on the gathering-ground of the public water-supply, though no ordinance forbids it.

Manufacturing wastes are run into the rivers and streams, where freshets remove them easily and safely. Some complaint is made of the system.

POLICE.

The police force of Waterbury is appointed and governed by a board of police commissioners, 4 in number, appointed by the aldermen and council for a term of two years, 2 members being appointed each year. The mayor is the presiding officer. The chief executive officer of the police is the chief of police, who has the general charge of his department and receives a salary of $1,100 a year. The rest of the force consists of 6 patrolmen, salary $900 a year each, and 16 supernumeraries, who receive 20 cents per hour while on duty. The uniform is of blue cloth, and the chief of police reports the cost as $150 per year each, the men furnishing their own. They are equipped with a 25-inch locust club at night, a 22-inch rosewood club during the day, chain twisters, revolver, and duplex call-whistle. They patrol from 2 to 4 miles of streets each. During the past year there were 1,061 arrests, the principal cause being drunkenness. Property to the value of about $2,000 was lost or stolen and reported to the police, who recovered and returned $1,700 of it. During the year, 336 station-house lodgers were accommodated. The police must co-operate with the other city departments when needed. Special police are appointed by the police commissioners, and act when called upon. The members of the regular force are appointed for life or during good behavior. The annual cost of the department is about $10,000.